

NO.

Use	Description of usage
30	combined polarized beam from source
31	point light source
32	light source
33,	infrared mirror
34	LCD display
35	ultraviolet mirror
36	polarizing beam splitter
37	ultraviolet portion of source beam 55
38	half-wave retarder
39	half-wave retarder
40	Broad band mirror
41	light source reflecting means
42	Broad band mirror
43	collimating lens or means
44	Broad band mirror
45	first lensing surface
46	Broad band mirror
47	polarized separated beam
48	color filters
49	separated polarized beam
50	unpolarized collimated beam of light
51	input polarized beam into LCD
52	P polarized beam
53	reflected beam
54	S polarized beam
55	resultant beam without infrared portion
56	reflected second P-polarized beam
57	source beam without ultraviolet portion

58	separated reflected beam
59	altered polarized beam
60	separated reflected beam
62	left side beam output
63	integrator
64	right side beam output
65	light source reflecting means
66	control means
67	light ray
68	light ray
69	light ray
70	scene
71	second lensing surface
72	left side camera
73	rays from light source
74	right side camera
75	body of integrator
76	left side input to projector
77	light ray
78	right side input to projector
80	red - green/blue splitting mirror
81	projector
82	red mirror/filtering means
84	green - blue splitting mirror
86	blue mirror
87	viewing screen
88	blue mirror/filter
89	quarter-wave retarder
90	mirror/combiner for red/green-blue
92	mirror/combiner for red and green
93	dichroic combiner or splitter
94	coating in X dichroic (oriented for red)

96	coating in X dichroic (oriented for blue)
100	LCD cell or pixel
101	liquid crystal material
103	transparent plate
104	transparent plate
105	spacer for LCD cell
106	spacer for LCD cell
107	sealing element
108	sealing element
109	conductive coating
110	conductive coating
116	first LCD
118	second LCD
120	first altered beam
122	second altered beam
126	second half-wave retarder
128	combined S&P beam
129	Combined S&P beam in elliptical beam
132	red beam
134	green/blue beam
136	red beam block
138	red LCD
140	green LCD
141	Infrared portion of visible light beam
142	blue LCD
144	altered red beam
146	polarizer analyzer
148	projector lens
150	rejection beam block
152	altered green beam
154	green beam
156	blue beam

158	blue beam block
160	altered blue beam
161	beam block absorber
164	laser diodes or leds
166	substrate
170	Single red light source
171	beam expander means
172	Single green light source
174	Single blue light source
175	3D polarization viewing device
176	metallic end pieces
178	Projected beam through lens
180	gas
182	clear plates of glass for fluorescent tubes
184	silver reflector
186	end cap
188	quarter-wave retarder
189	Variable retarder
190	second polarizer analyzer
192	rejection beam-block
194	collimated red beam with 1 polarization
196	collimated green beam with 1 polarization
198	collimated blue beam with 1 polarization
200	1st surface for reflecting polarized beam
201	Electrodes
202	2nd surface for reflecting polarized beam
204	3rd surface for reflecting polarized beam
206	4th surface for reflecting polarized beam
208	5th surface for reflecting polarized beam
210	6th surface for reflecting polarized beam
212	7th surface for reflecting polarized beam
214	8th surface for reflecting polarized beam

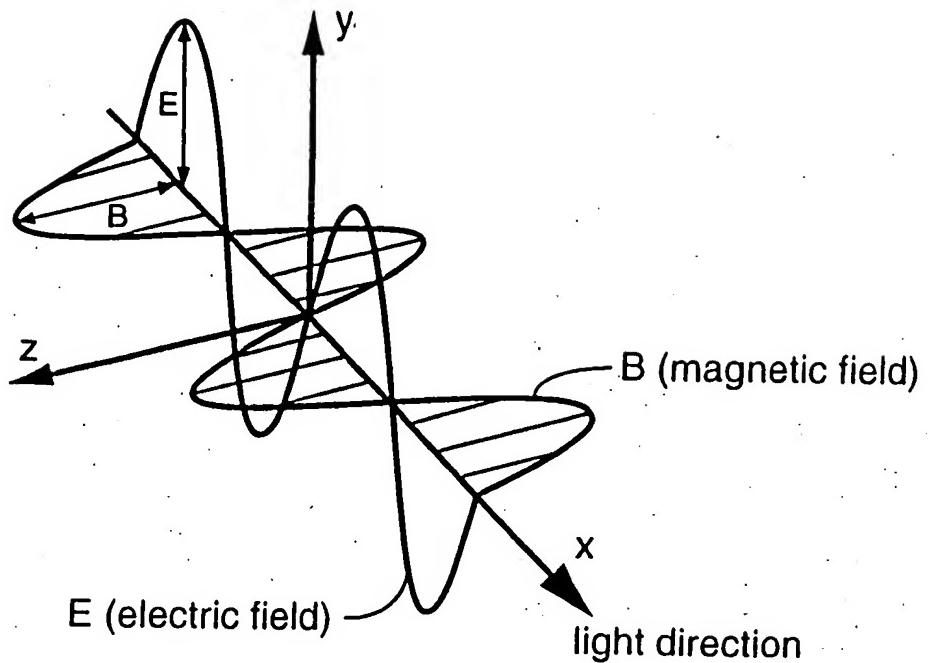


Fig. 1

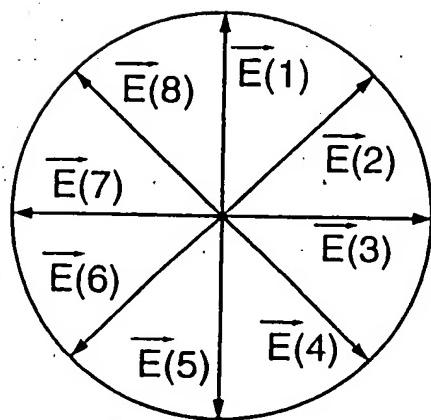


Fig. 1A

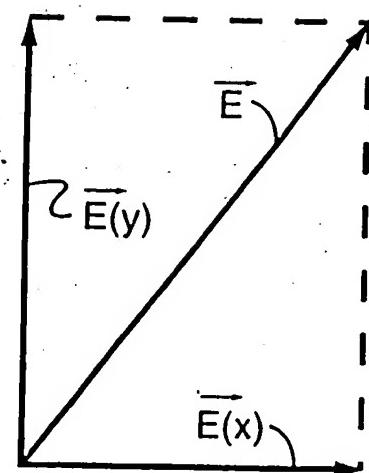


Fig. 1B

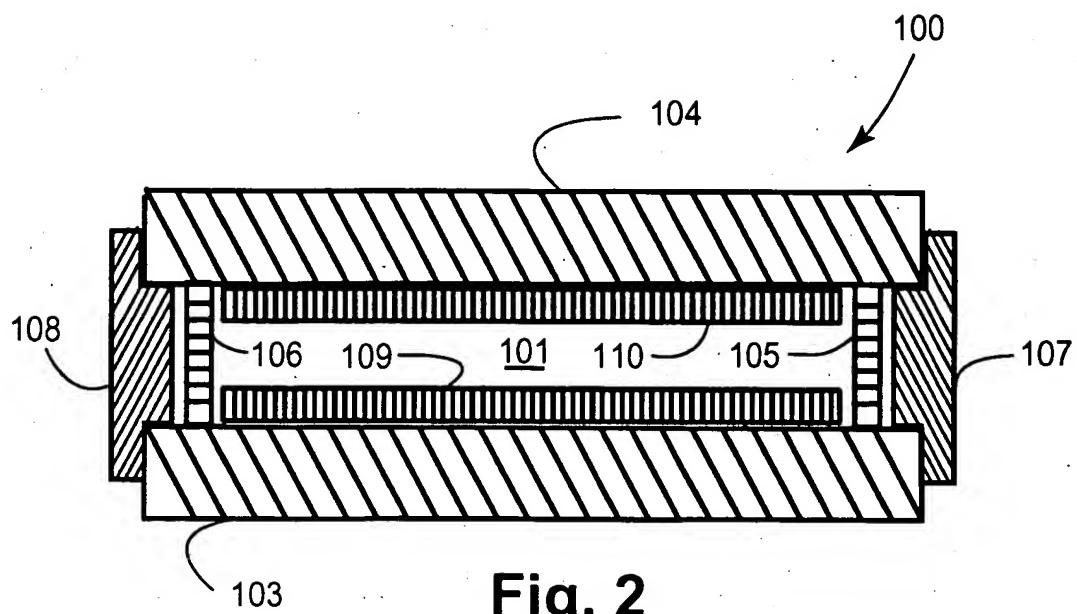


Fig. 2
(Prior Art)

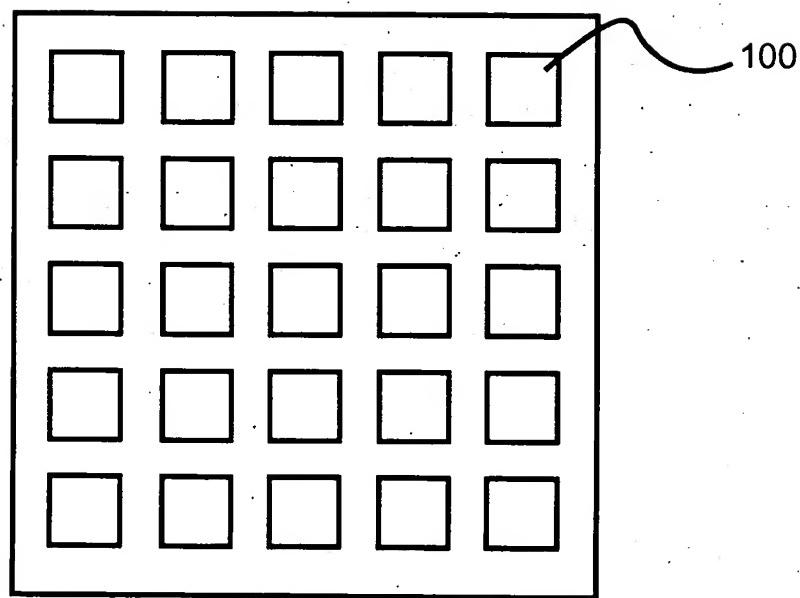


Fig. 2A

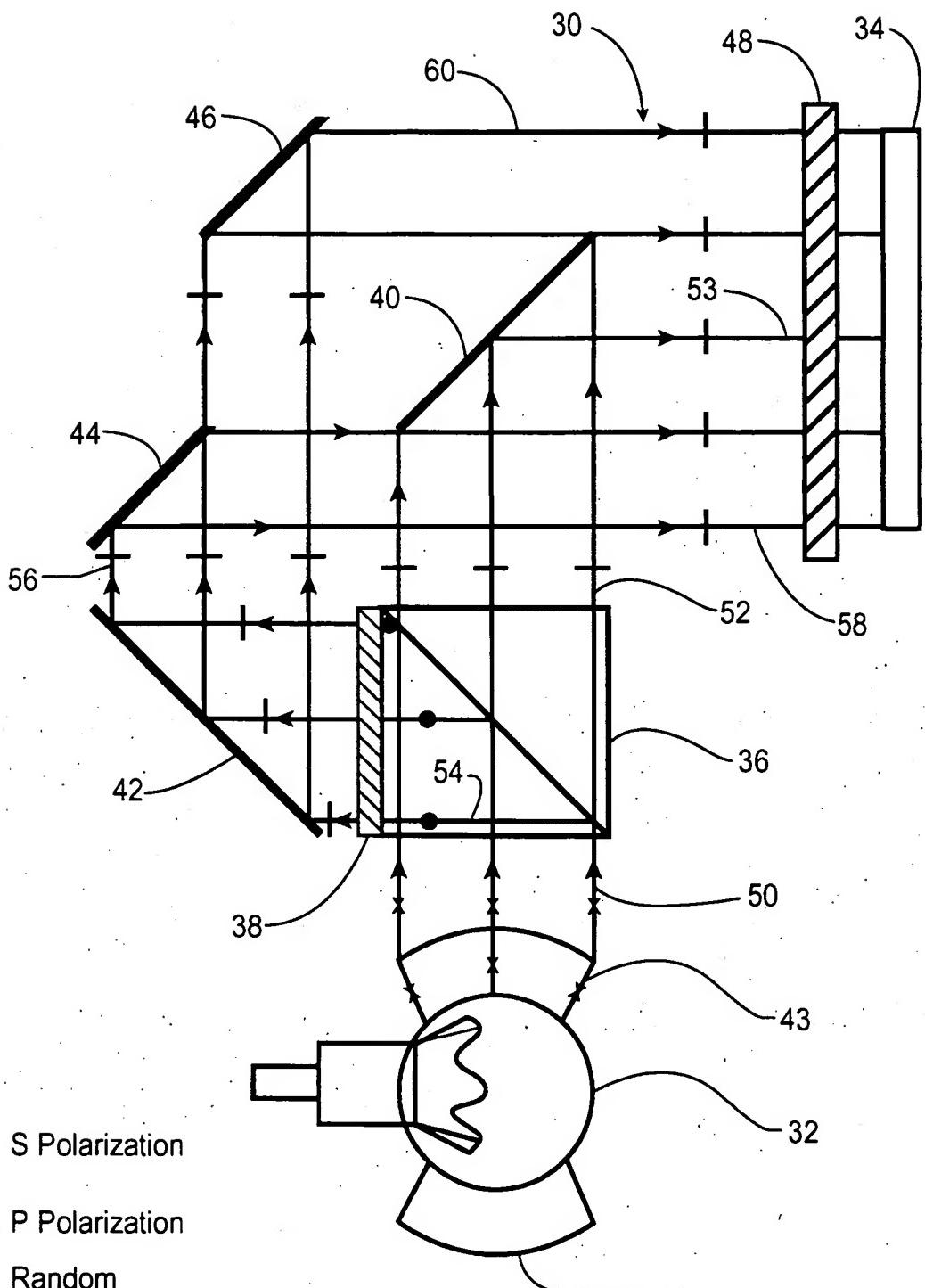


Fig. 3

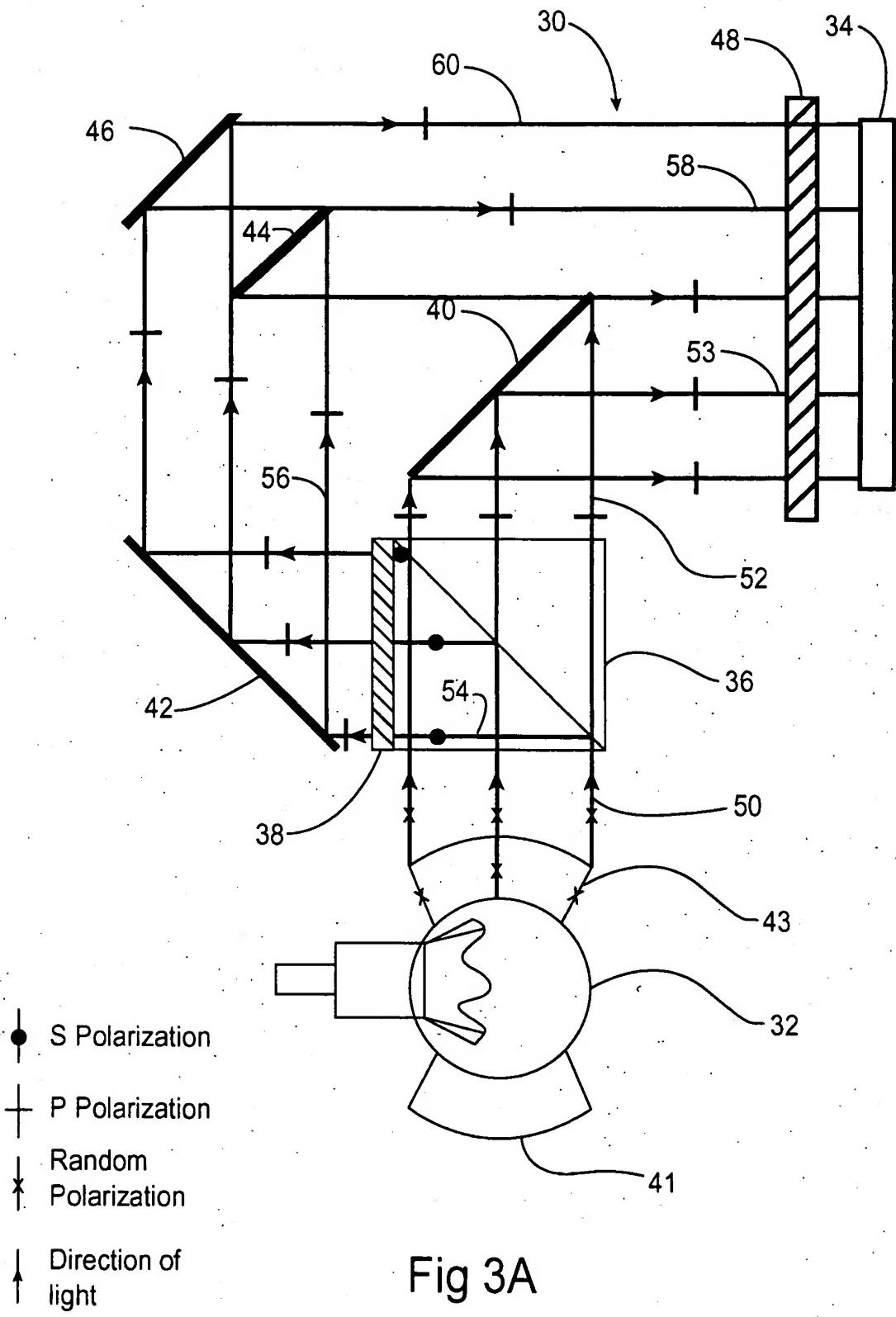


Fig 3A

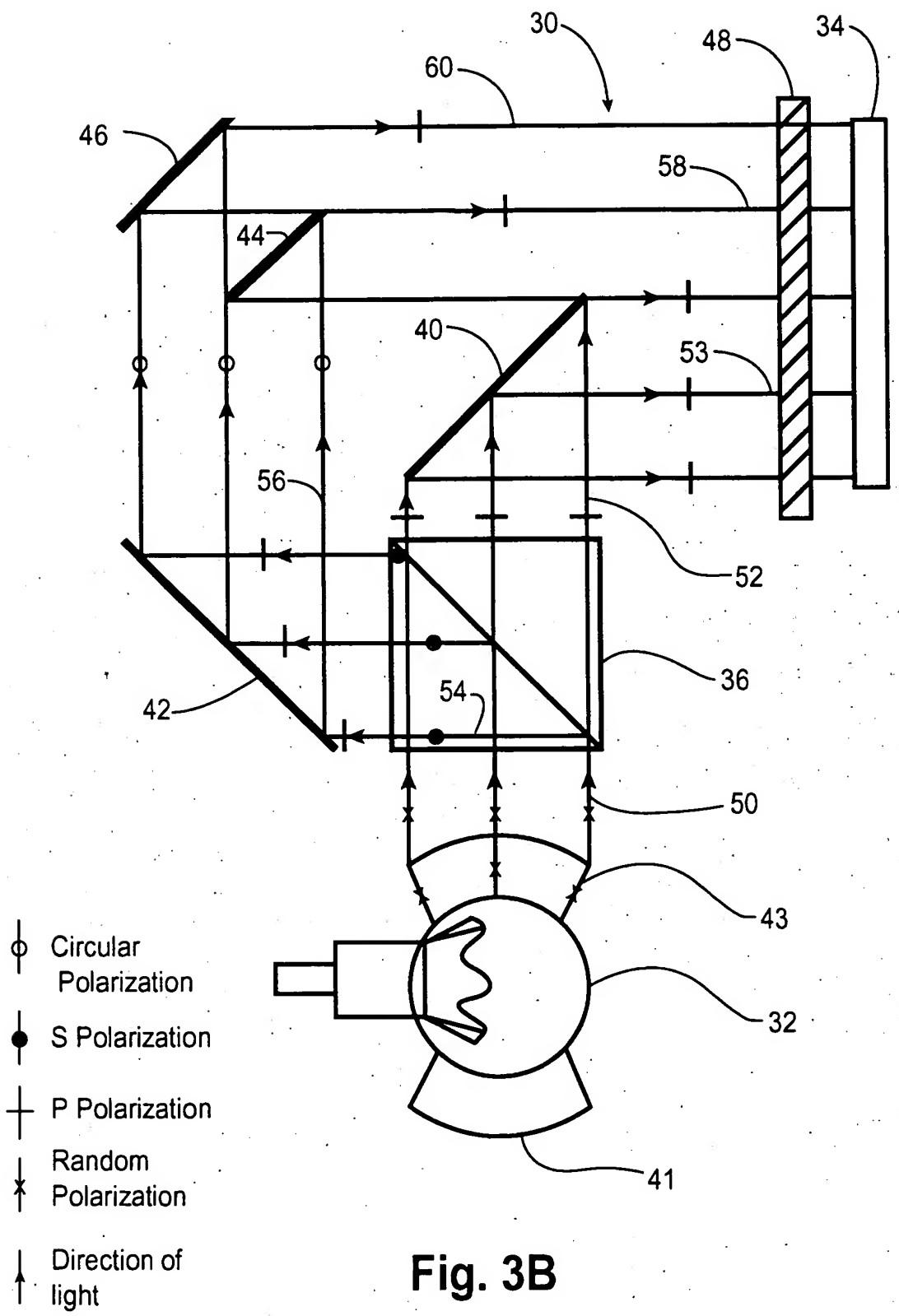


Fig. 3B

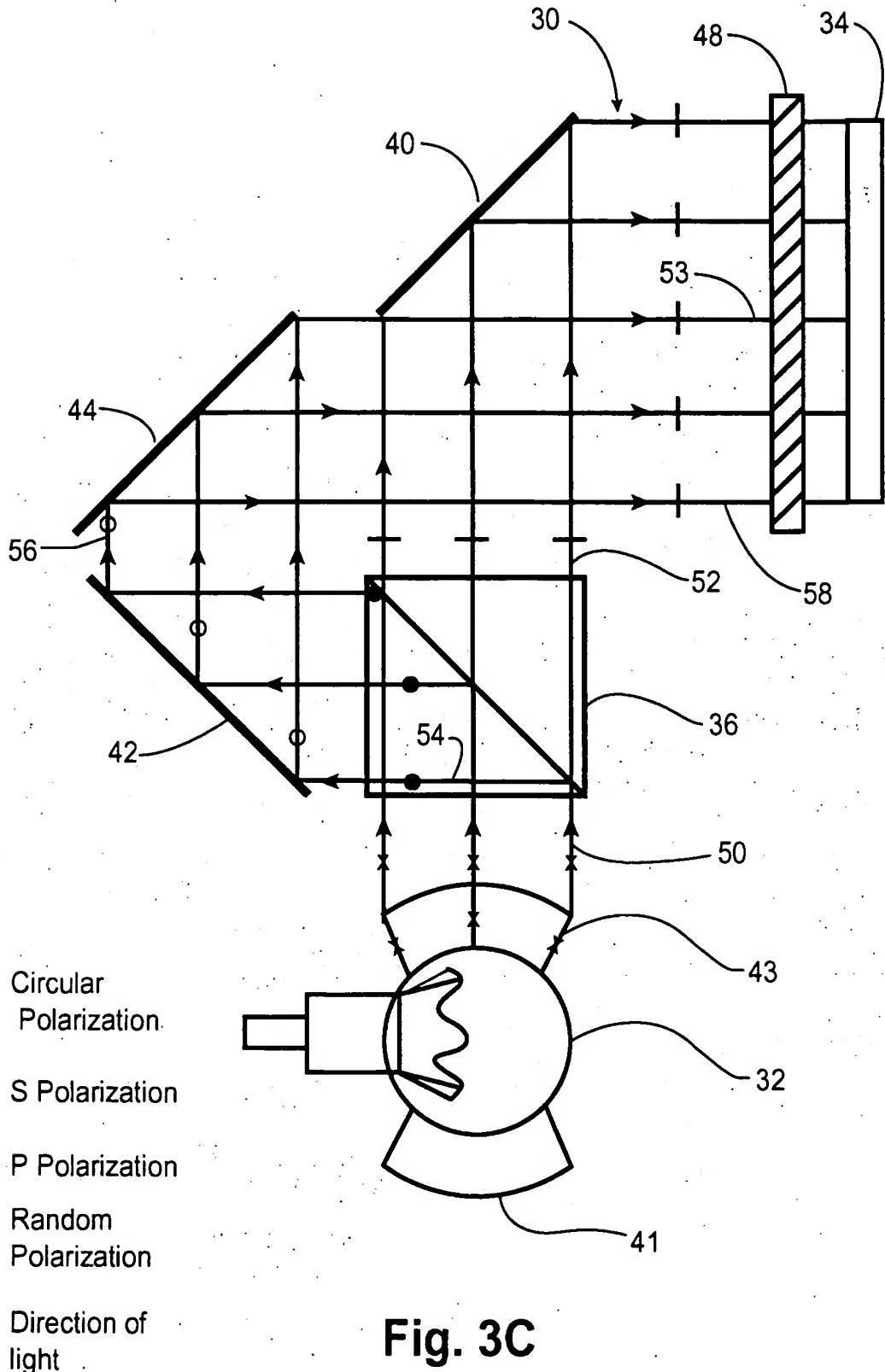


Fig. 3C

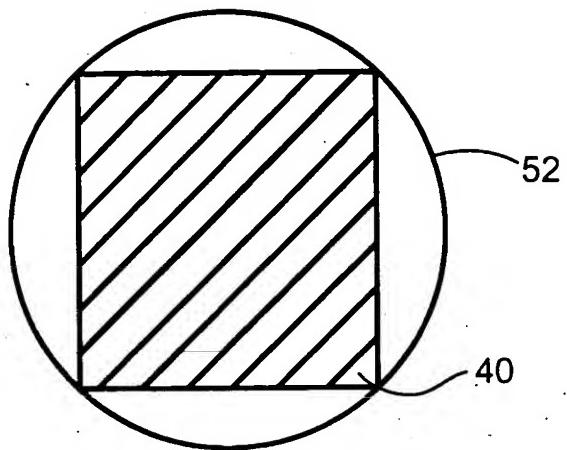


Fig. 4

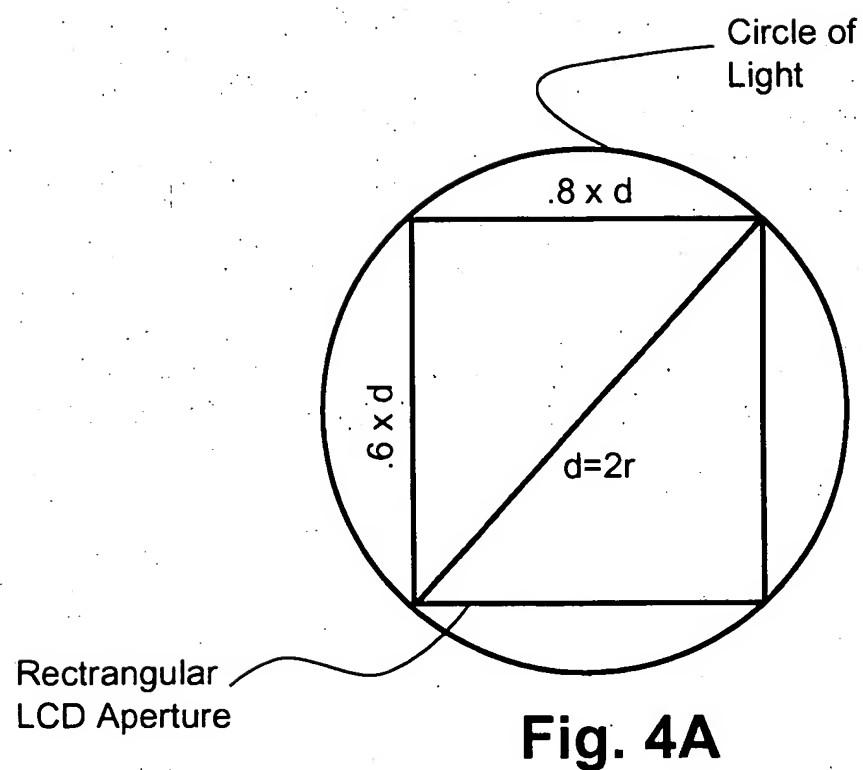


Fig. 4A

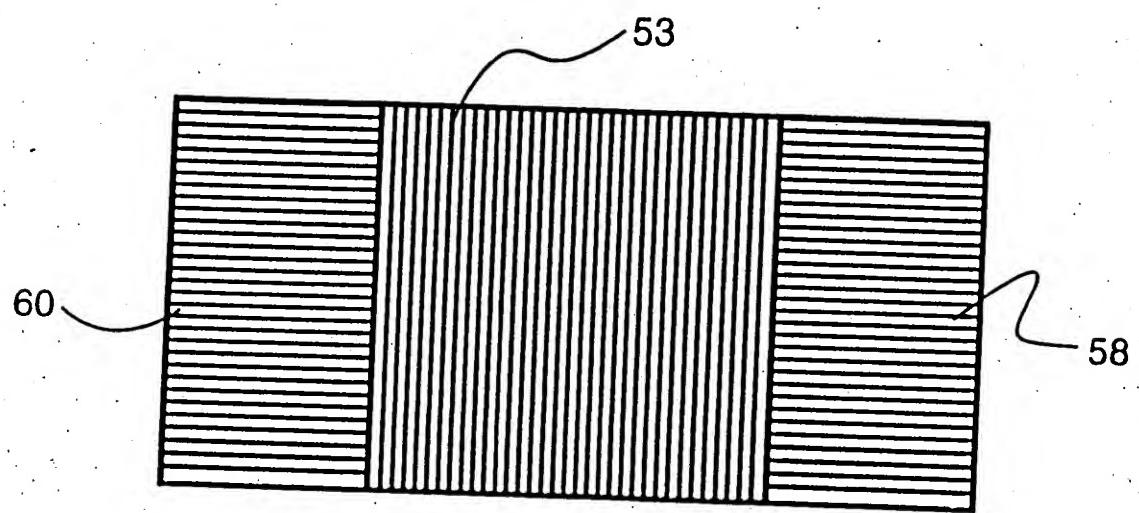


Fig. 5

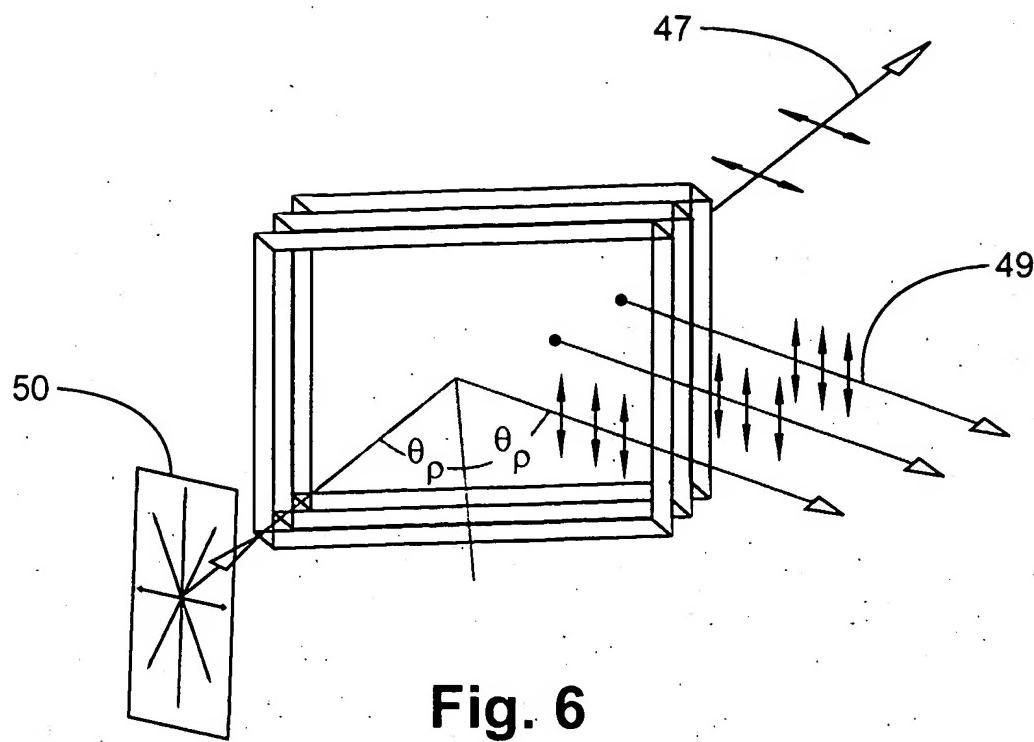


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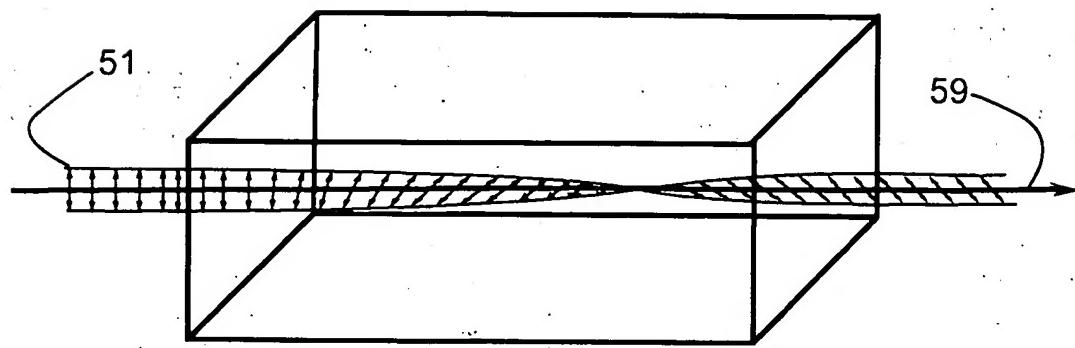


Fig. 7

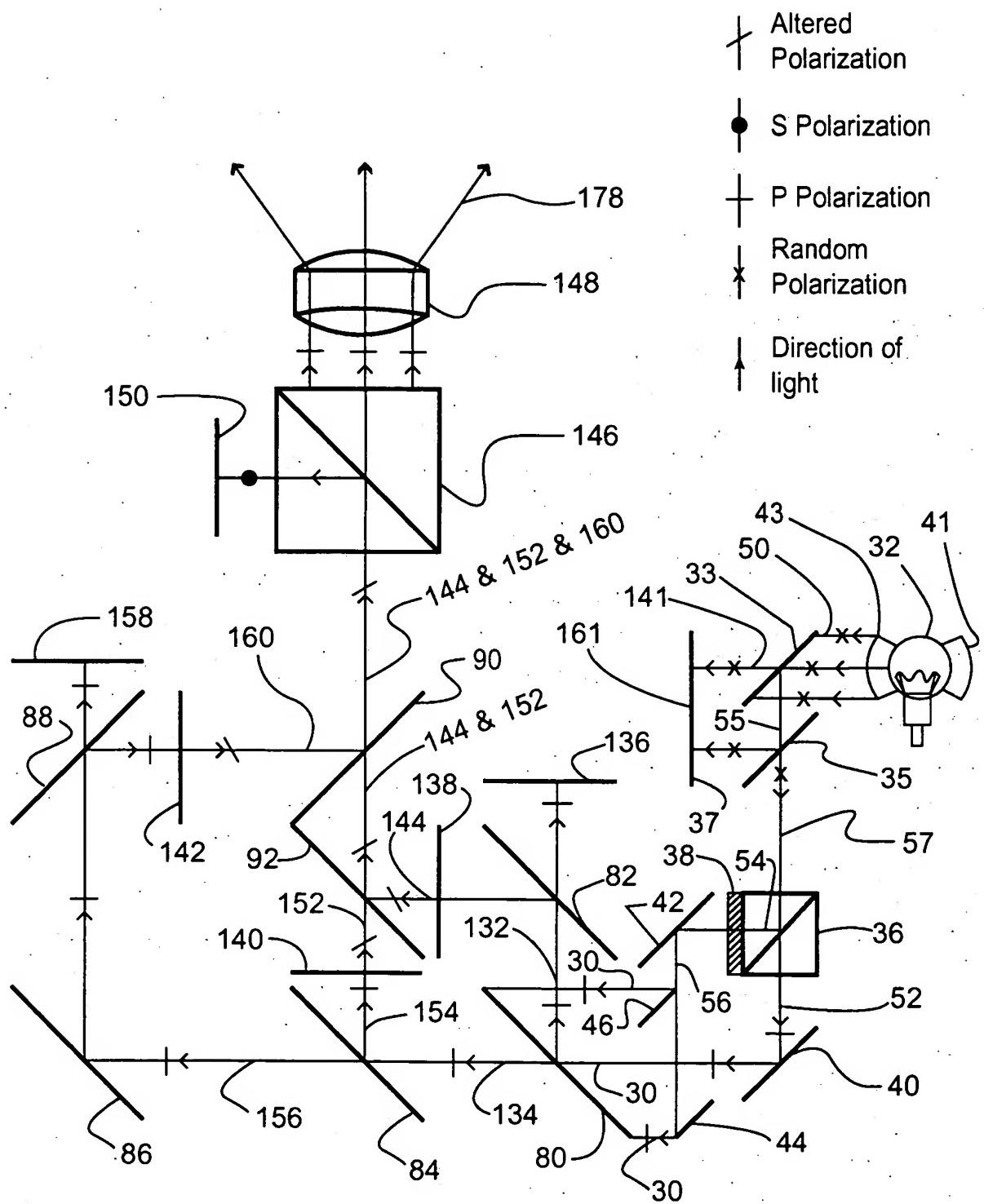


Fig. 8

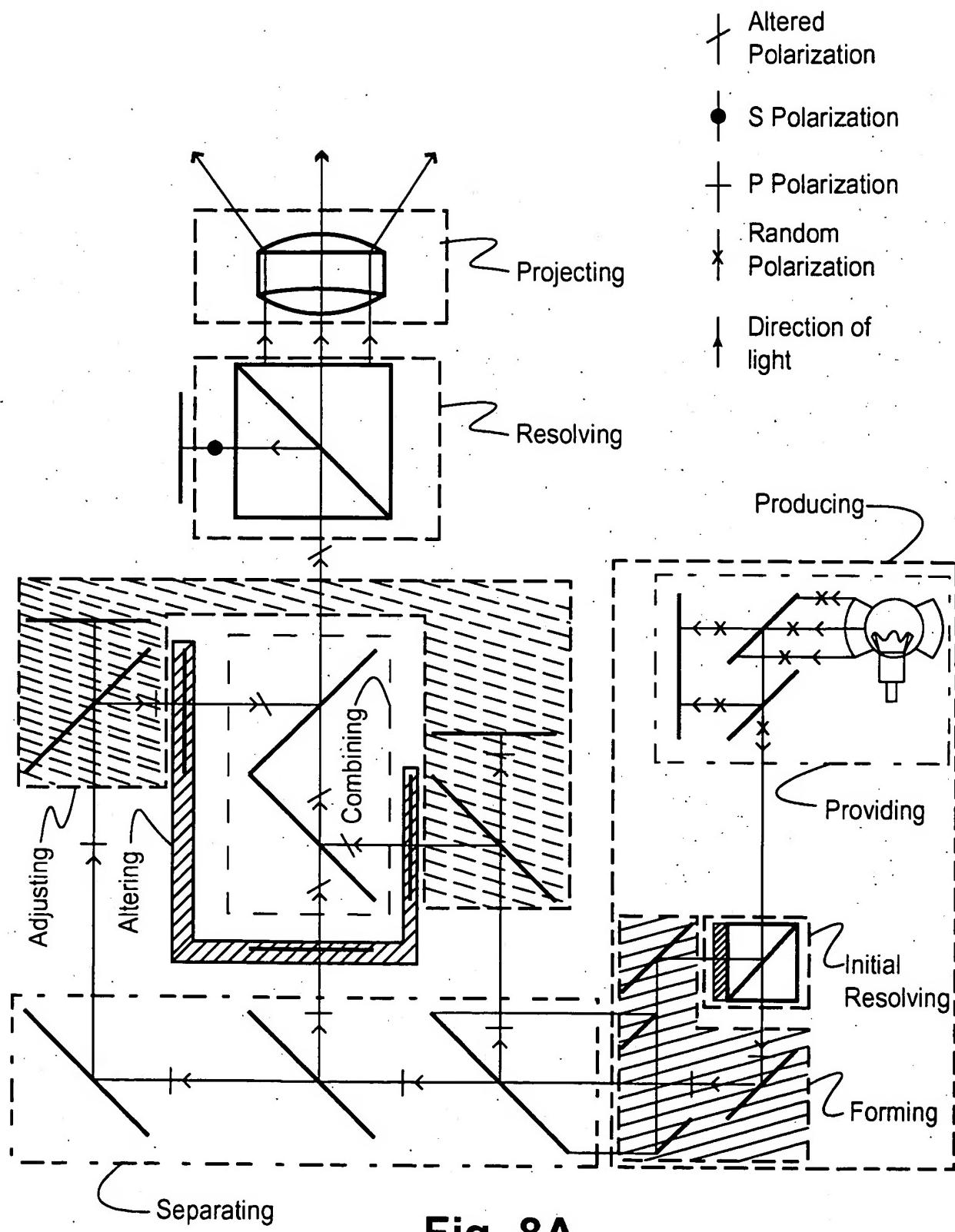


Fig. 8A

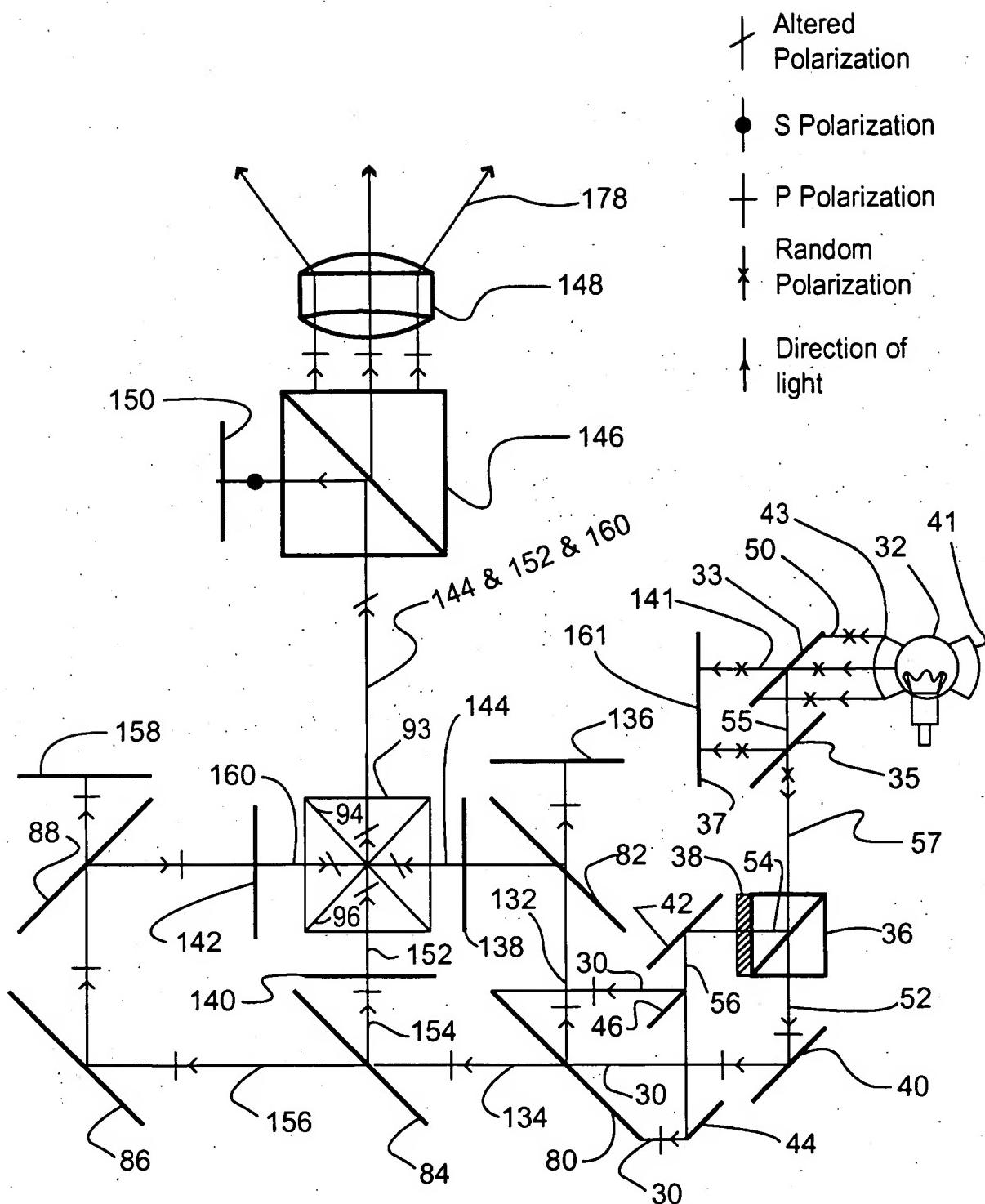


Fig. 8B

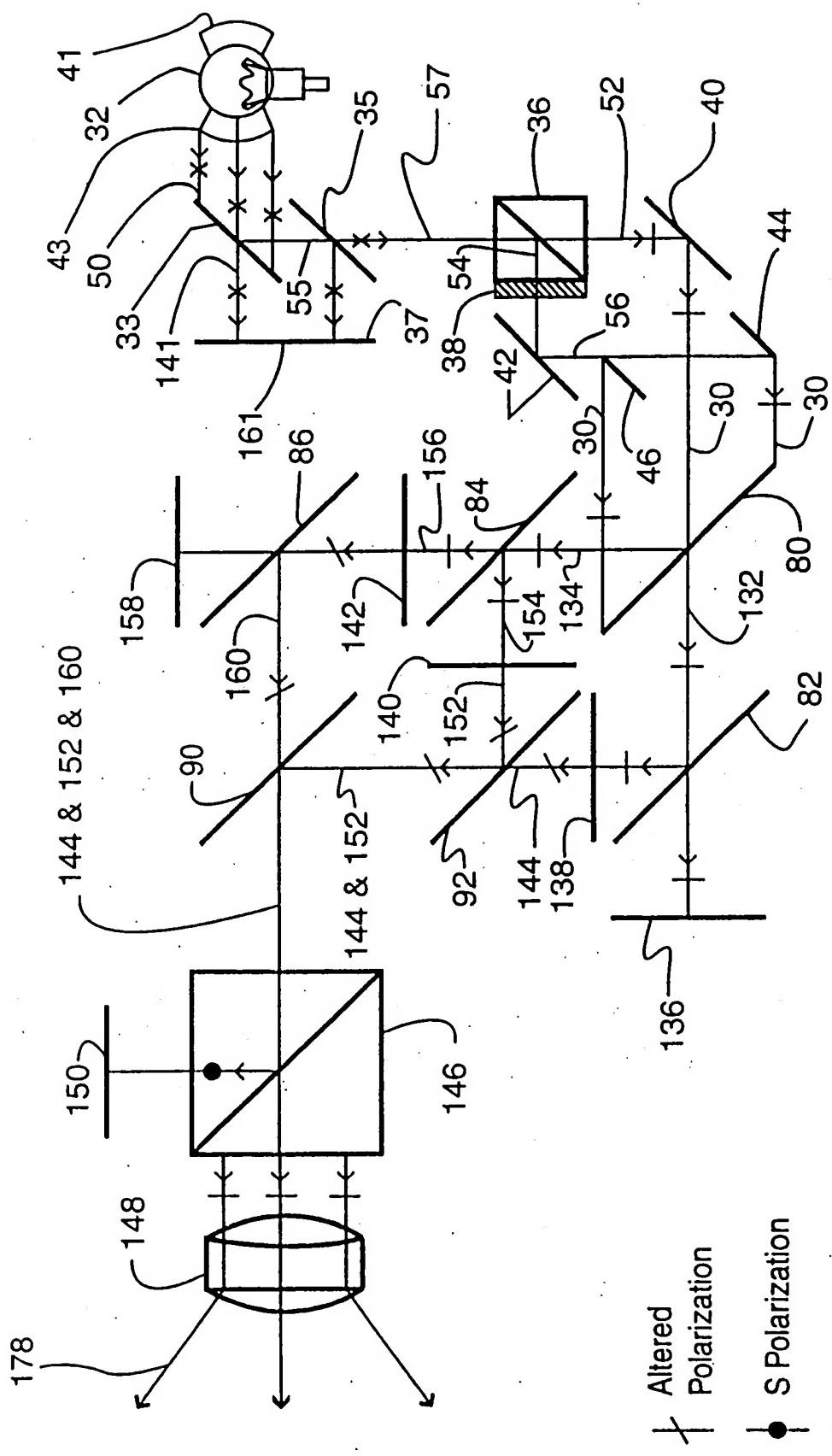


Fig. 8C

Direction of light

Random Polarization

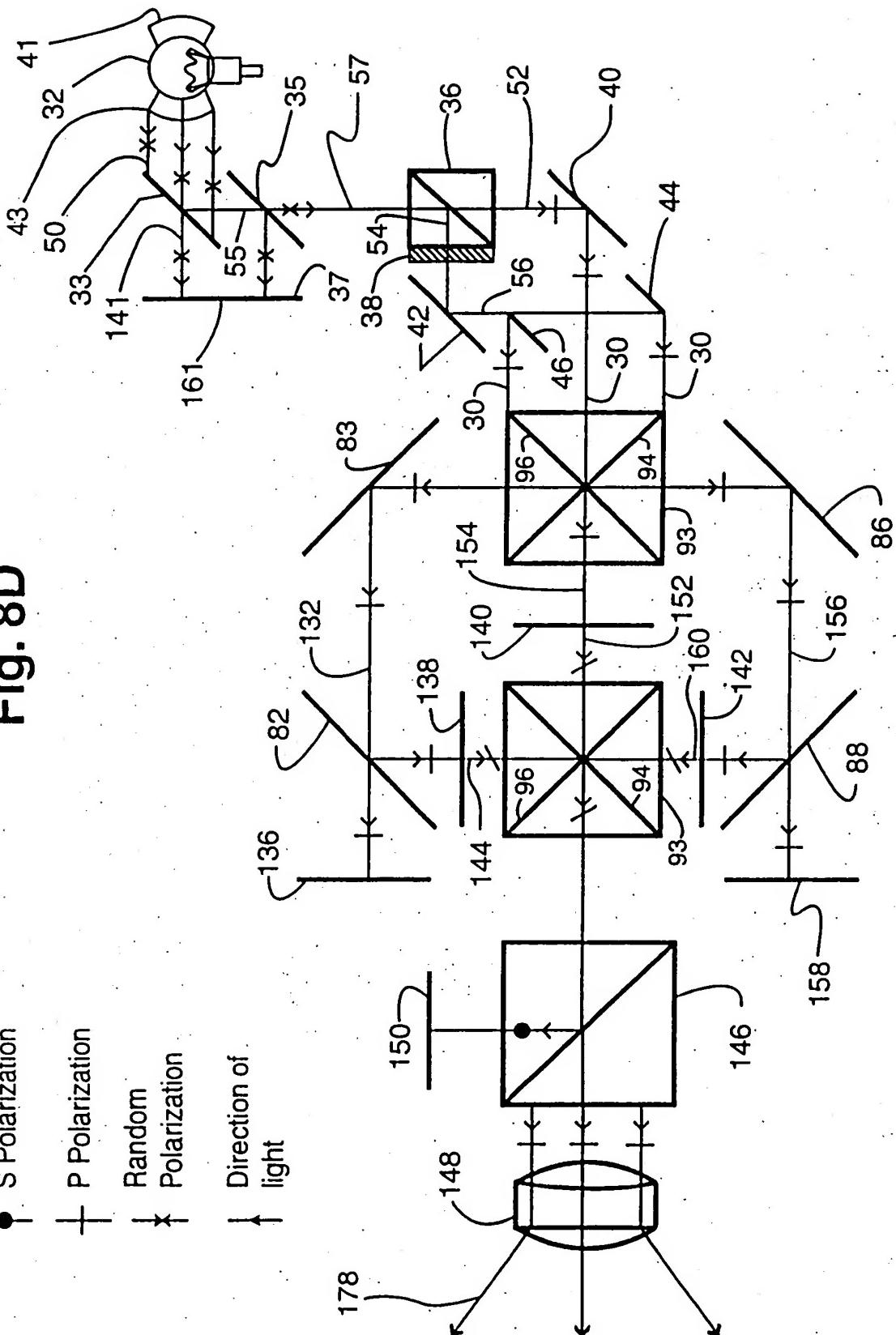
P Polarization

Altered Polarization

S Polarization

- † Altered Polarization
- S Polarization
- + P Polarization
- ✗ Random Polarization
- Direction of light

Fig. 8D



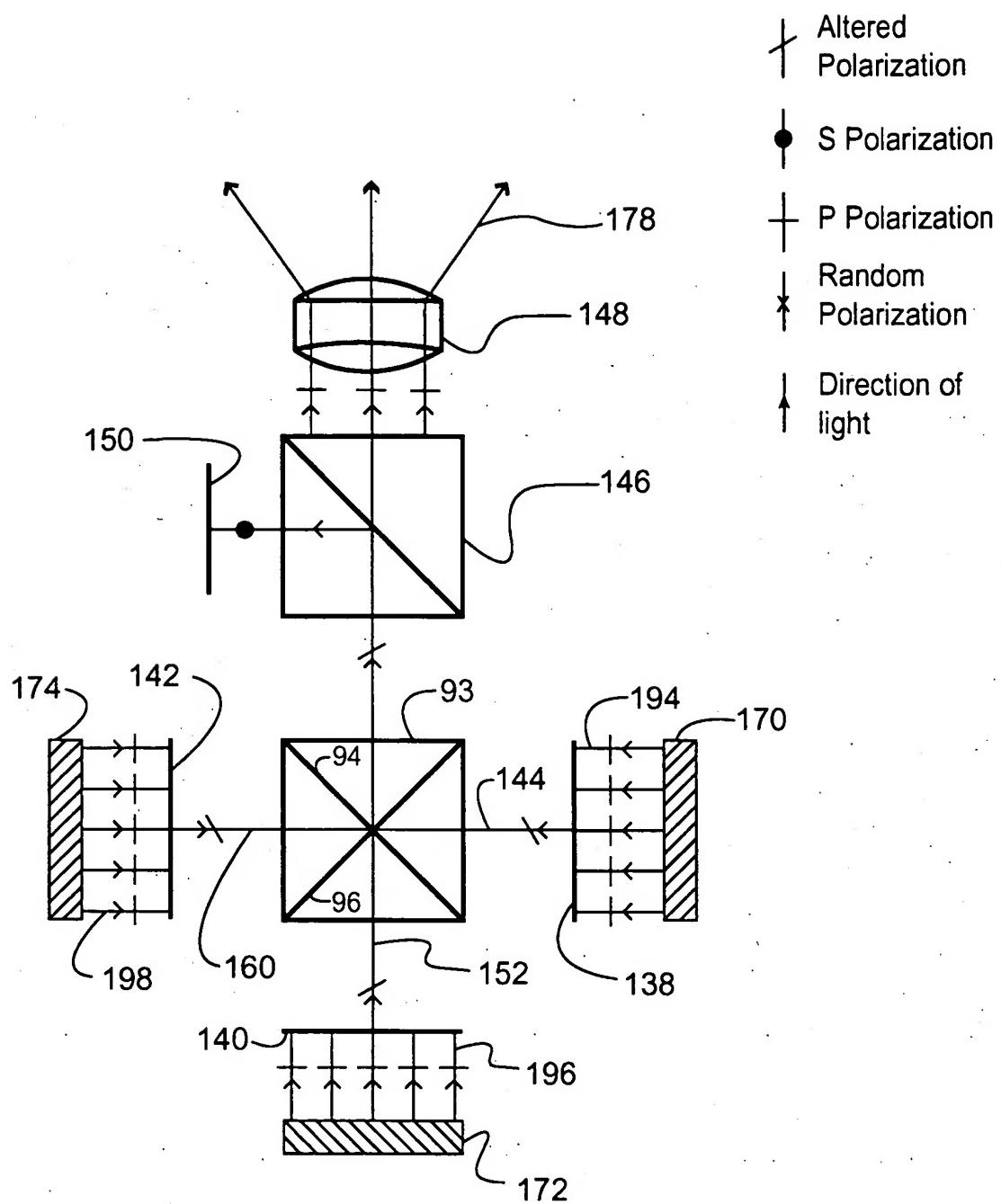


Fig. 8E

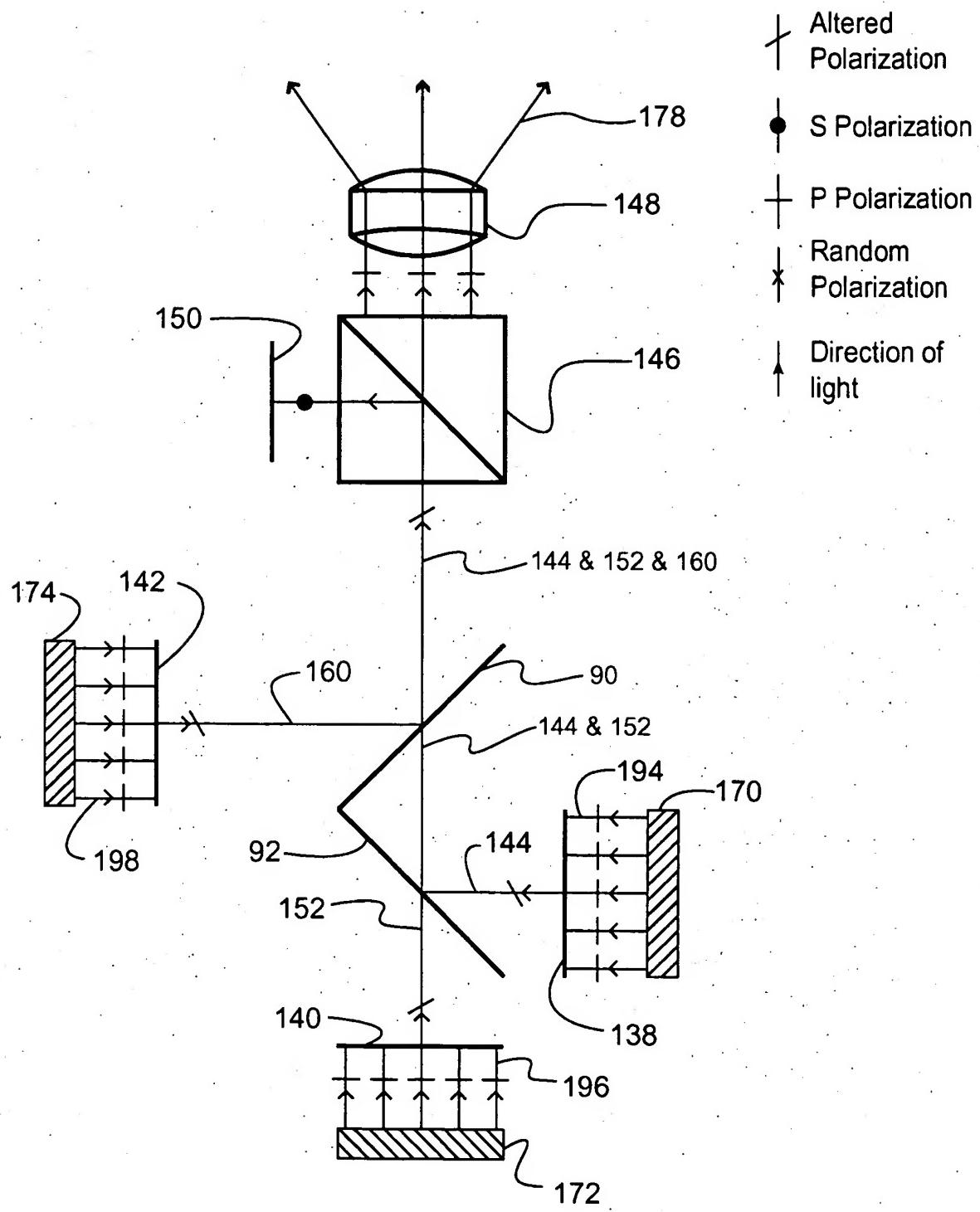


Fig. 8F

- + Altered Polarization
- S Polarization
- + P Polarization
- * Random Polarization
- ↓ Direction of light

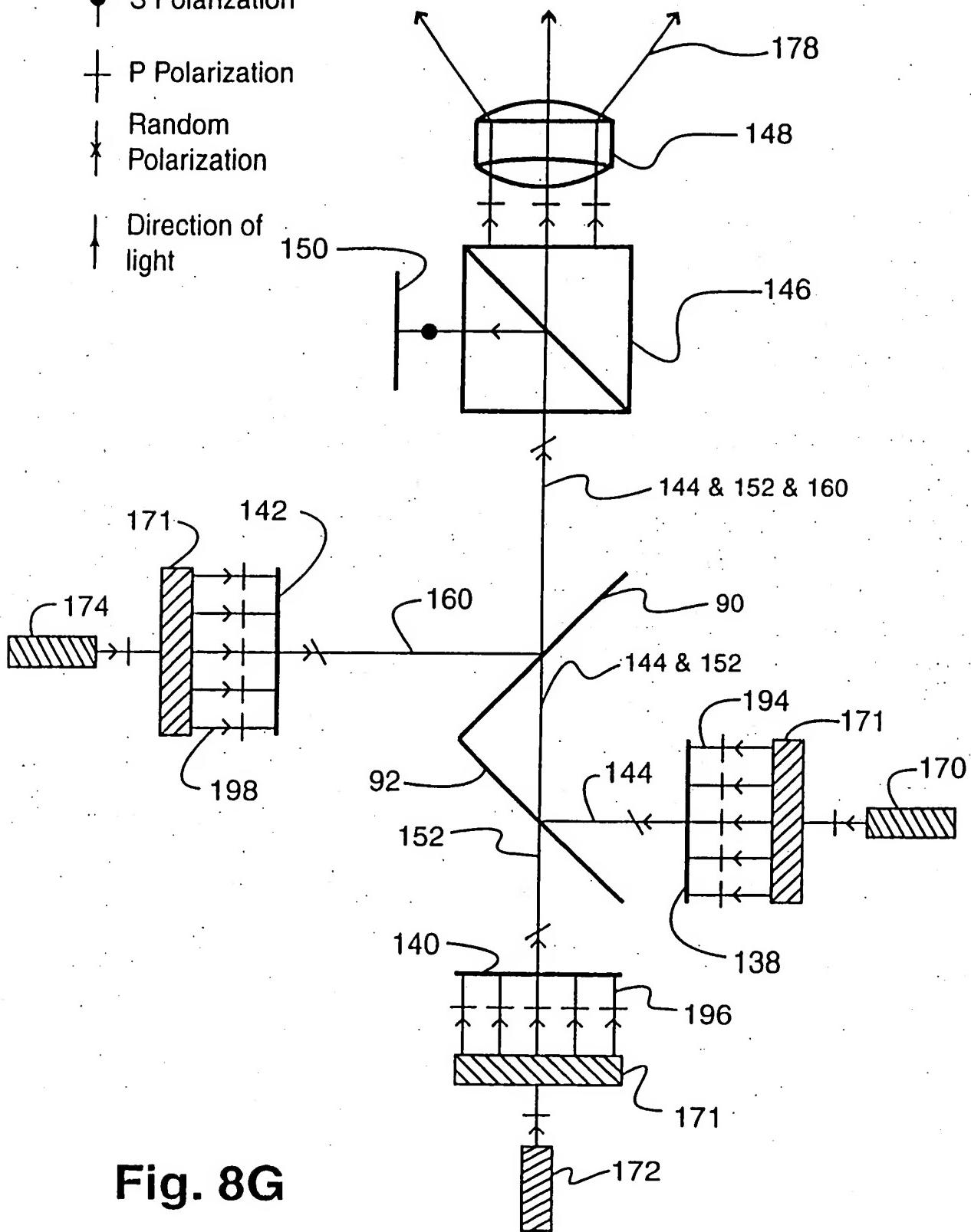


Fig. 8G

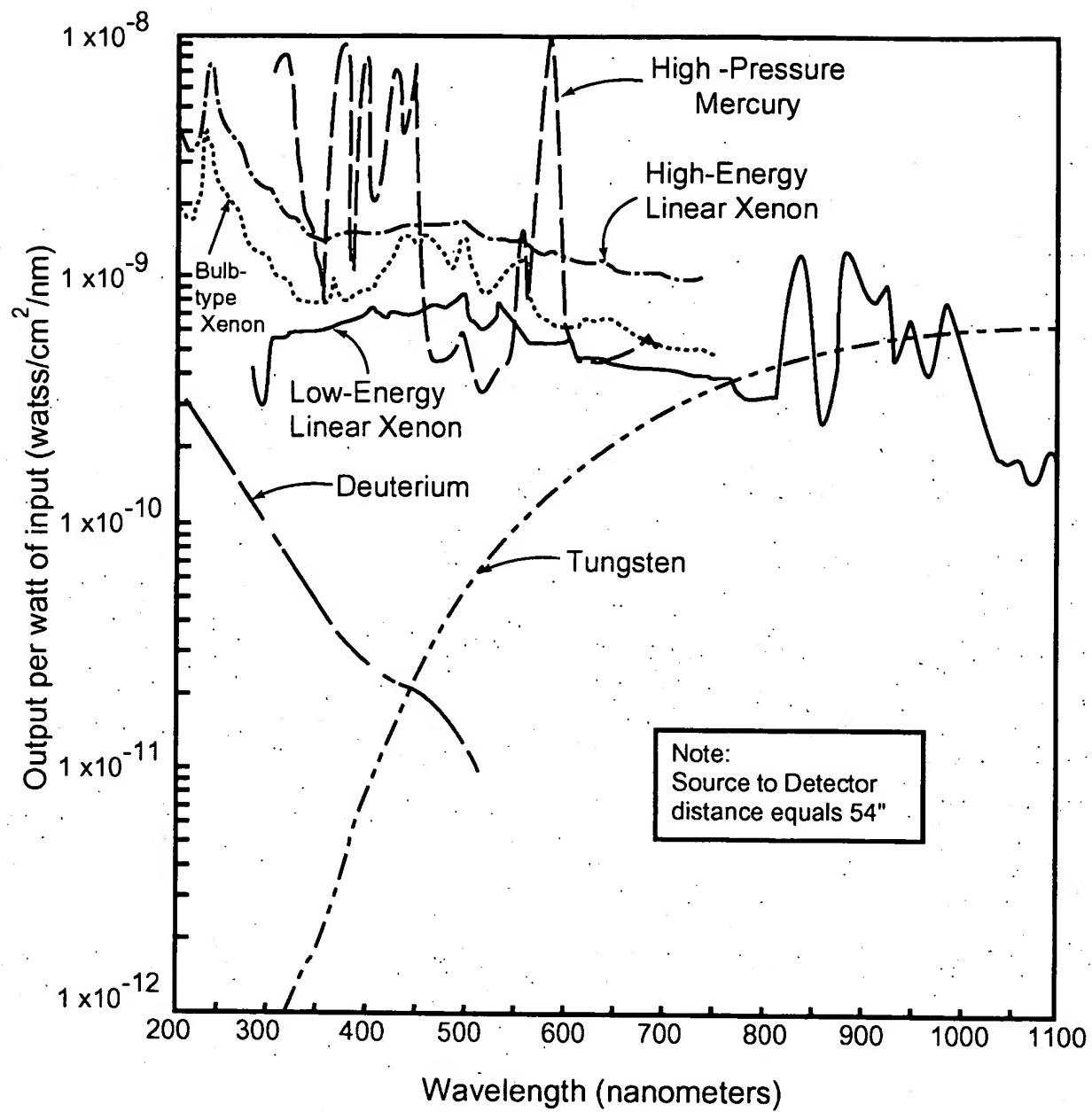


Fig. 9

SOURCE TYPE	LUMENS / WATT (1 PW)	APPARENT COLOR TEMP (°K)	SOURCE SIZE OR TYPE	AVERAGE LUMINANCE (cd/mm ²)
NATURAL (observed from earth)				
Sun	—	5900K	—	1600
Moon	—	—	—	0.0025
Clear Sky	—	12,000 to 25,000K	—	0.008
Overcast Sky	—	6500K	—	0.002
Lightning Flash	—	—	—	8x10 ⁴
COMBUSTION				
Candle flame	—	2000K	5x5mm	0.01
Kerosene Flame	—	—	8x8mm	0.012
Natural Gas Flame	—	—	12x12mm	0.004
Acetylene Flame	—	—	4x4mm	0.11
Photoflash Lamp	—	3800K	varies	160 to 400
NUCLEAR				
Atomic Fission Bomb	—	—	30 dia	2x10 ⁶
Self-Luminous Points	—	—	—	2 or 3x10 ⁻⁷
CARBON ARC				
Flame Flame	18	3800K	5x5mm	180
High Intensity	22	5500-6500K	8x8mm	500 to 1500
ENCLOSED ARC				
Compact high Pressure				
Mercury (100W)	20	8000K	0.25x0.2 mm	1700
Mercury (200W)	50	7000K	0.6x2.2 mm	400
Mercury-Xenon (1000W)	50	6000K	1.5x4.2 mm	350
Xenon(150W)	19	6000K	0.5x1.9 mm	180
Xenon(1600W)	37.5	6000K	1.4x4.0 mm	800
Xenon(20,000W)	57	6000K	3x11mm	4800
Metal Halide				
HMI(1200W)	92	5600K	2.5x13mm	120
CSI (1000W)	80	4200K	5x9mm	80
CID (1000W)	62	5500K	5x9mm	65
MARC 300	45	5000K	1x3mm	400
Zirconium	2.5	3200K	1.5mm dia	46
Argon	17	7000K	3x10mm	1400
High Intensity Discharge (HID)				
Clear Mercury (400W)	52	6000K	20x68mm	1.5
Metal Halide (400W)	85	4500K	20x40mm	4.2
High Pressure Sodium (400W)	125	2100K	8.8x87mm	6.5
Low Pressure				
Fluorescent (cool white)				
430 ma	80	4300K	T12 Bulb	0.008
800 ma	82	4300K	T12 Bulb	0.011
1500 ma	70	4300K	T12 Bulb	0.017
Sodium	150	1700K	—	.1
ELECTROLUMINESCENT				
Green @ 60 Hertz Green	—	—	—	3x10 ⁻⁵
Green @ 400 Hertz Green	—	—	—	7x10 ⁻⁵
INCANDESCENT				
Carbon Filament	3	2000K	C6 or C8	0.5
Tantalum filament	6	2200K	C6 or C8	0.7
Tungsten Filament				
Vacuum Lamp	10	2600K	C6 or C8	2.0
Gas Filled Lamps	20	3000K	CC6 or CC8	12
(includes tungsten halogen lamps)	26	3200K	CC6 or CC8	24
	33	4300K	CC6 or CC8	36

Fig. 9A

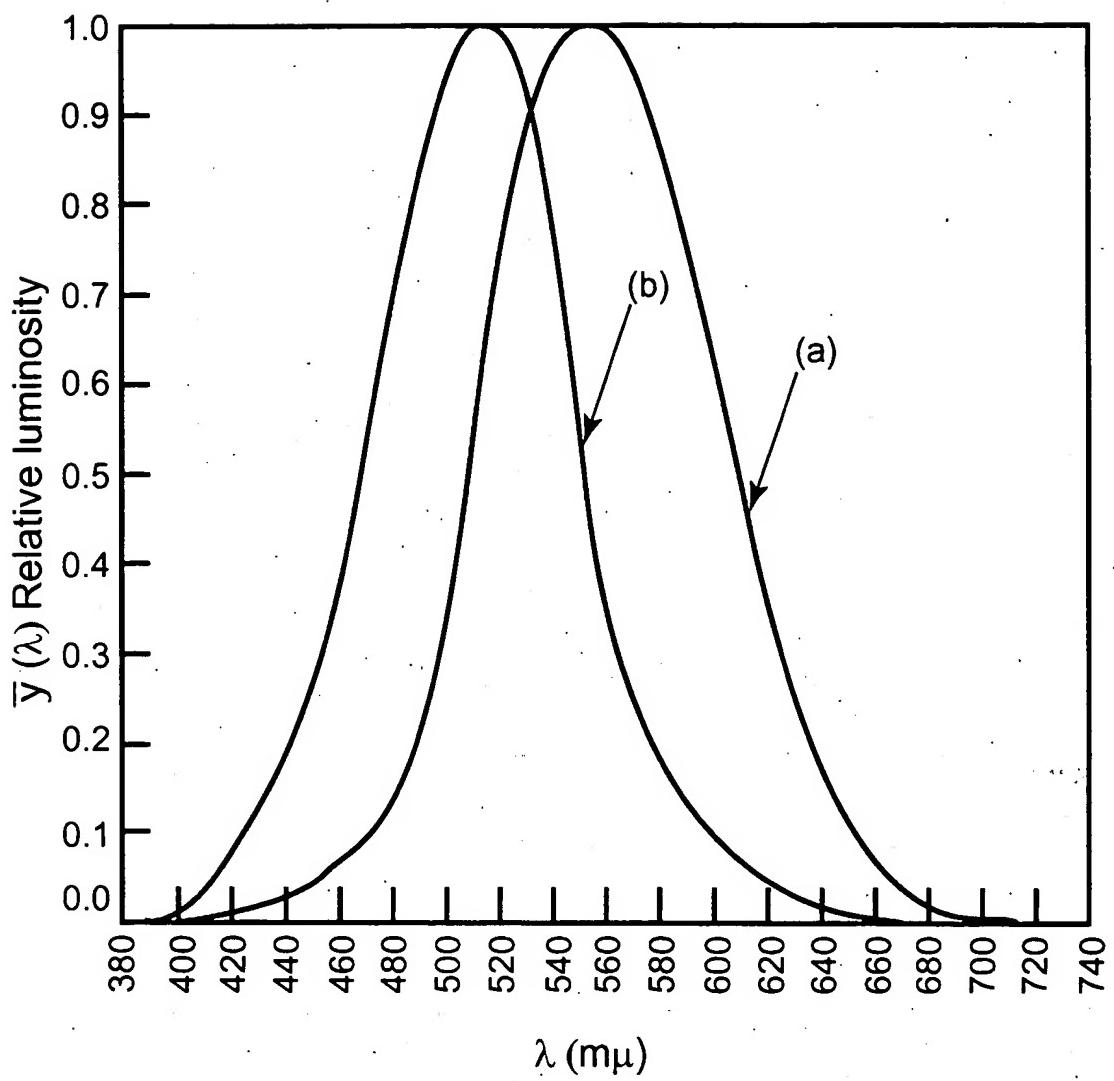


Fig. 10

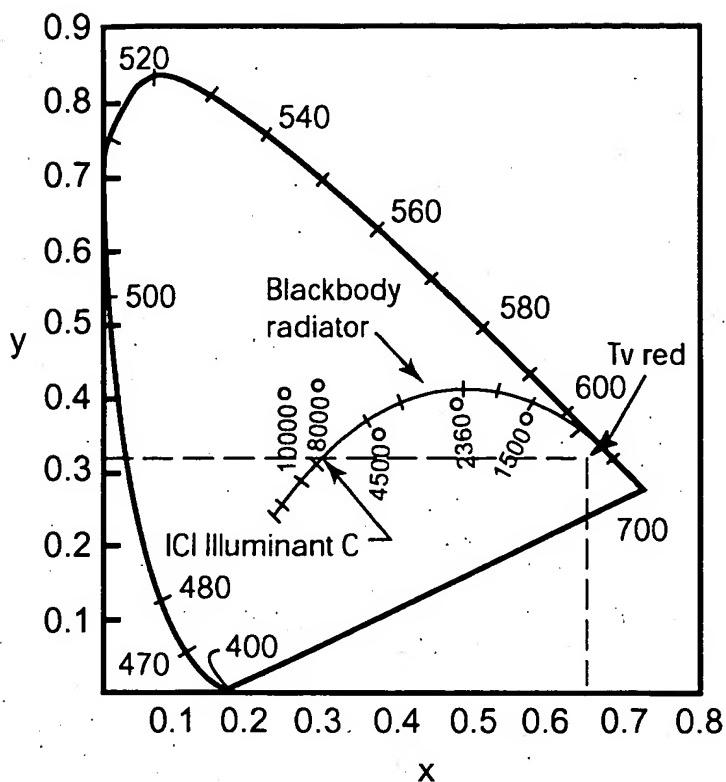


Fig. 10A

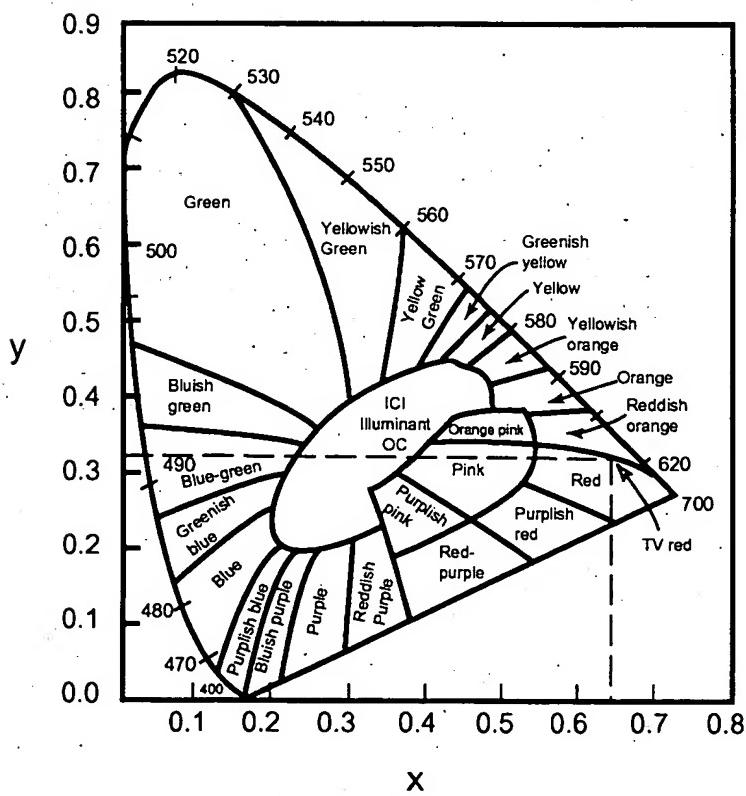


Fig. 10B

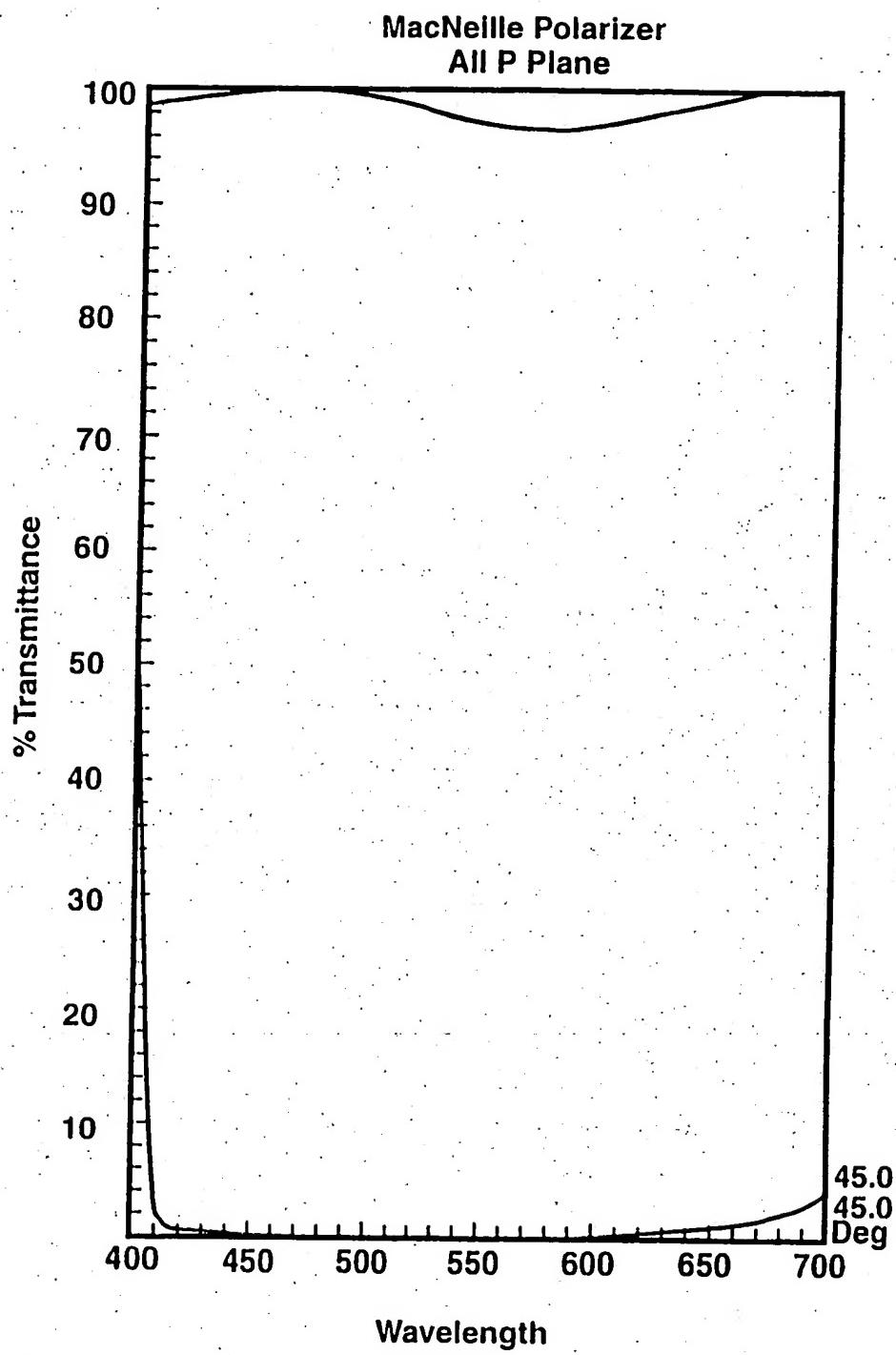


Fig. 11

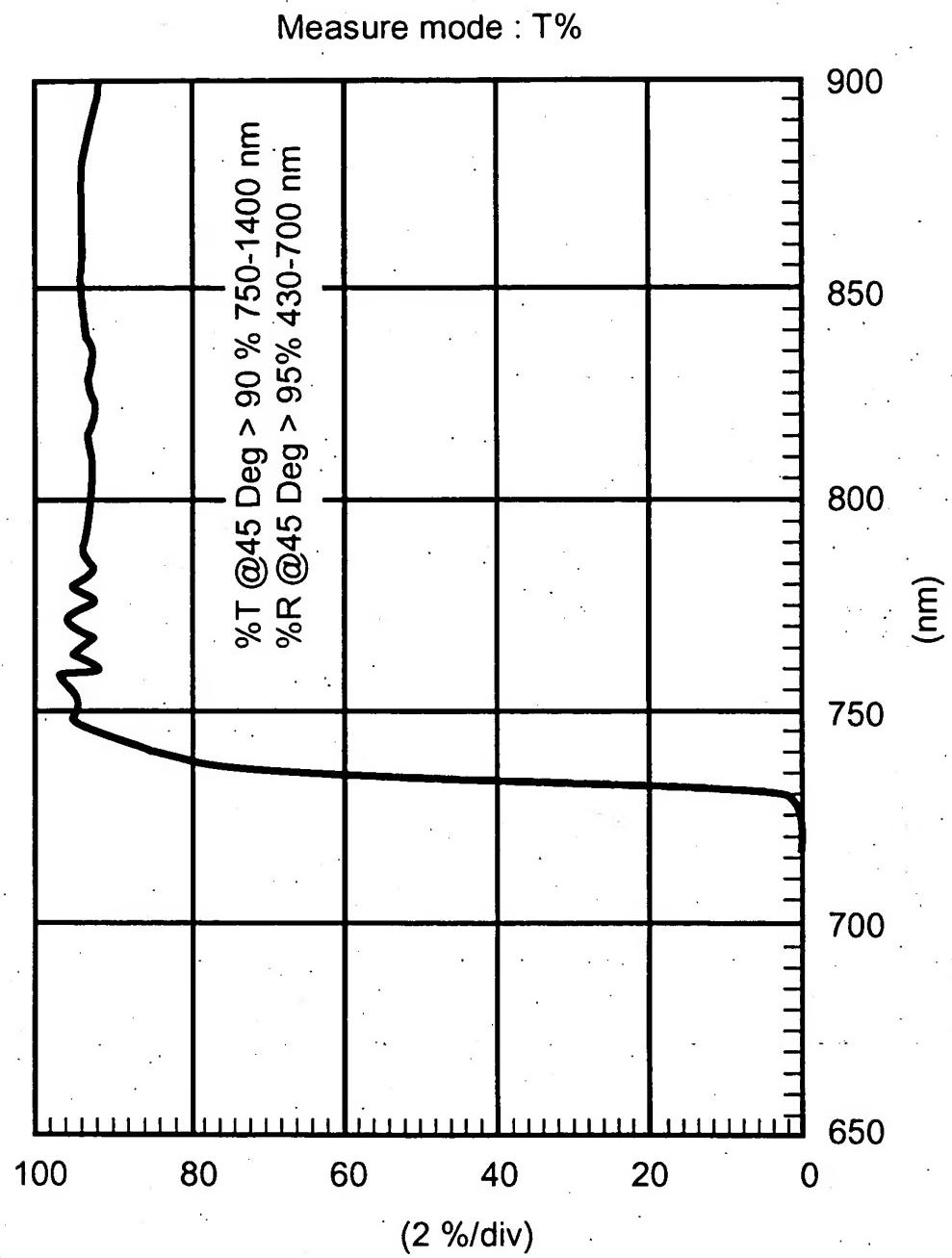


Fig. 12

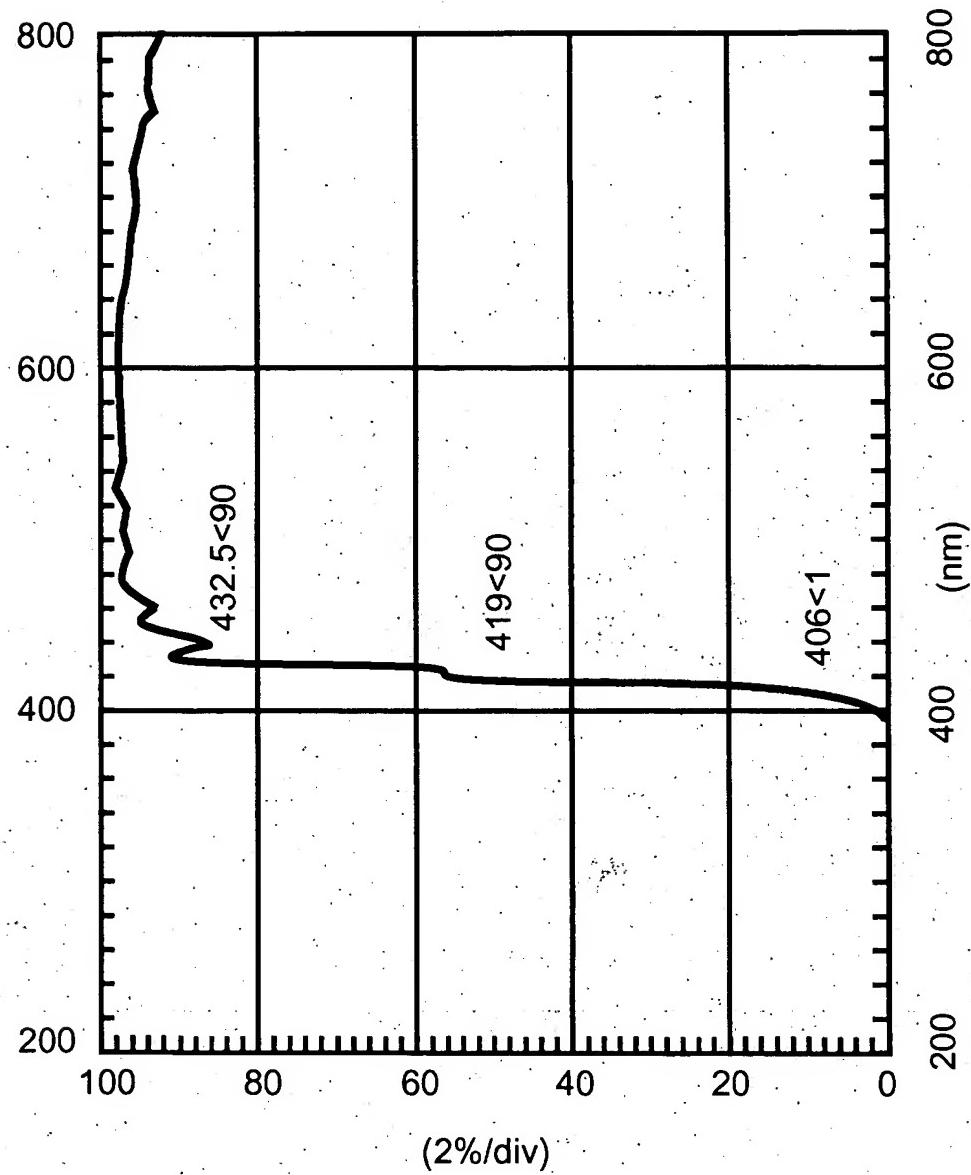


Fig. 13

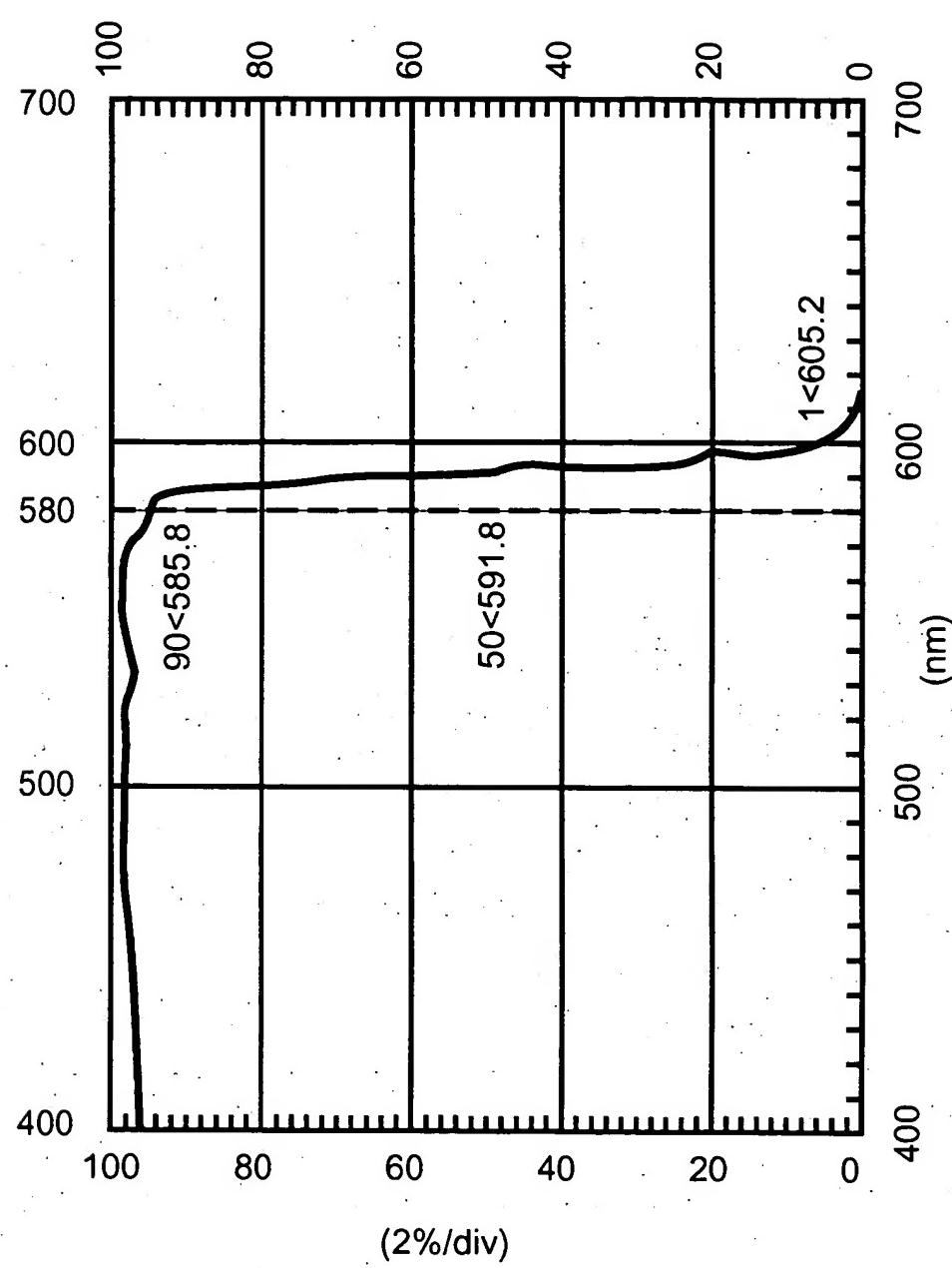


Fig. 14

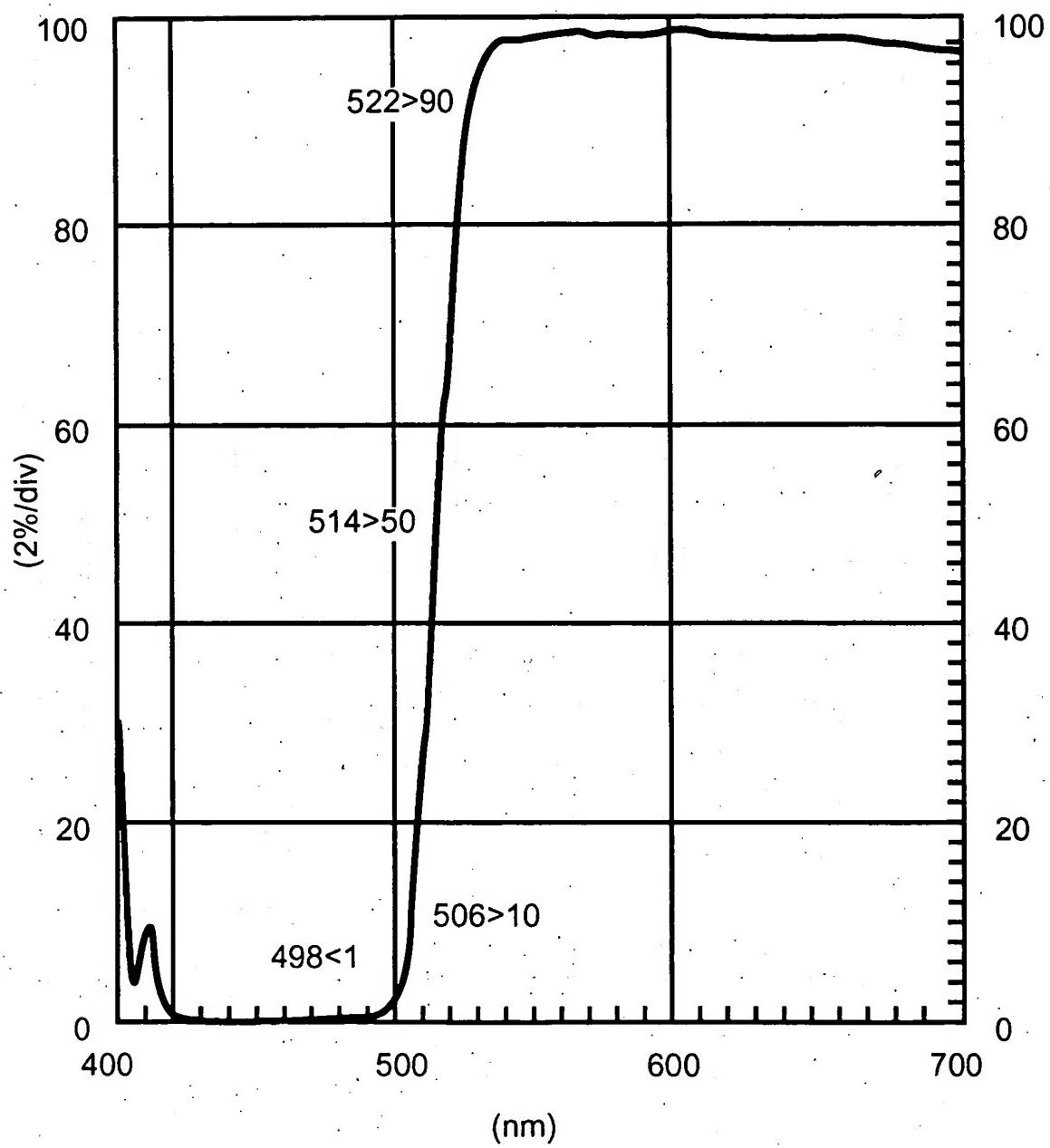


Fig. 15

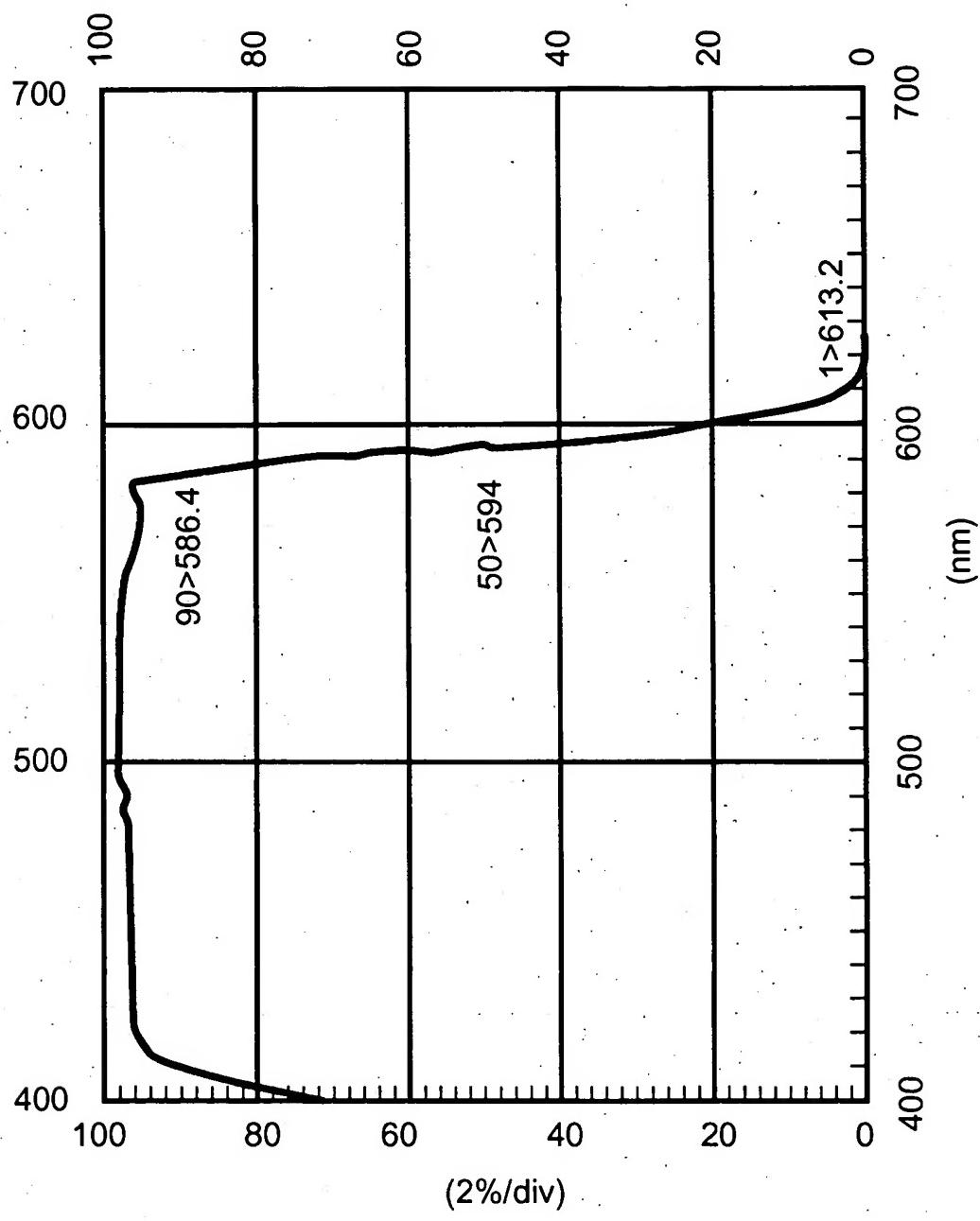


Fig. 16

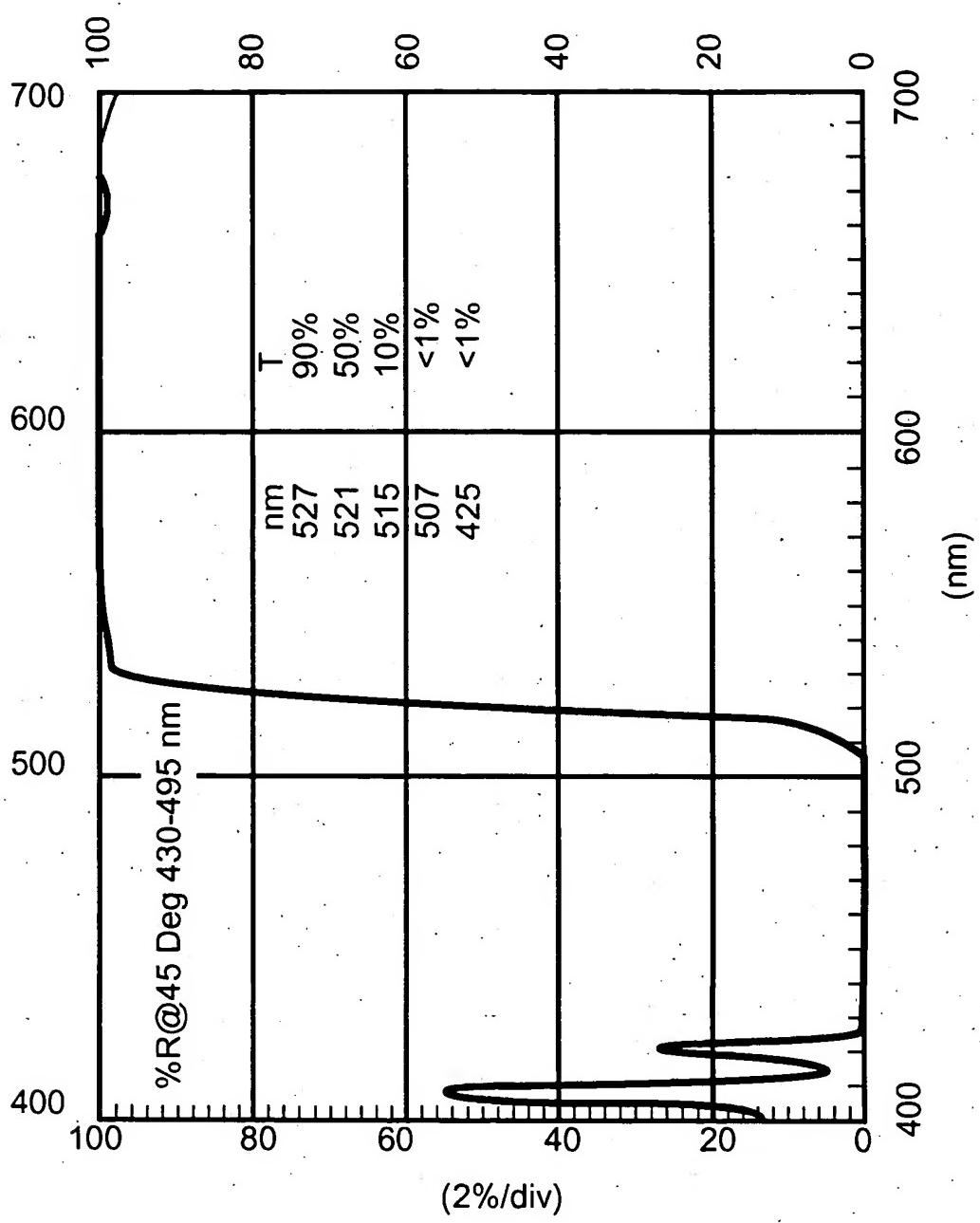


Fig. 17

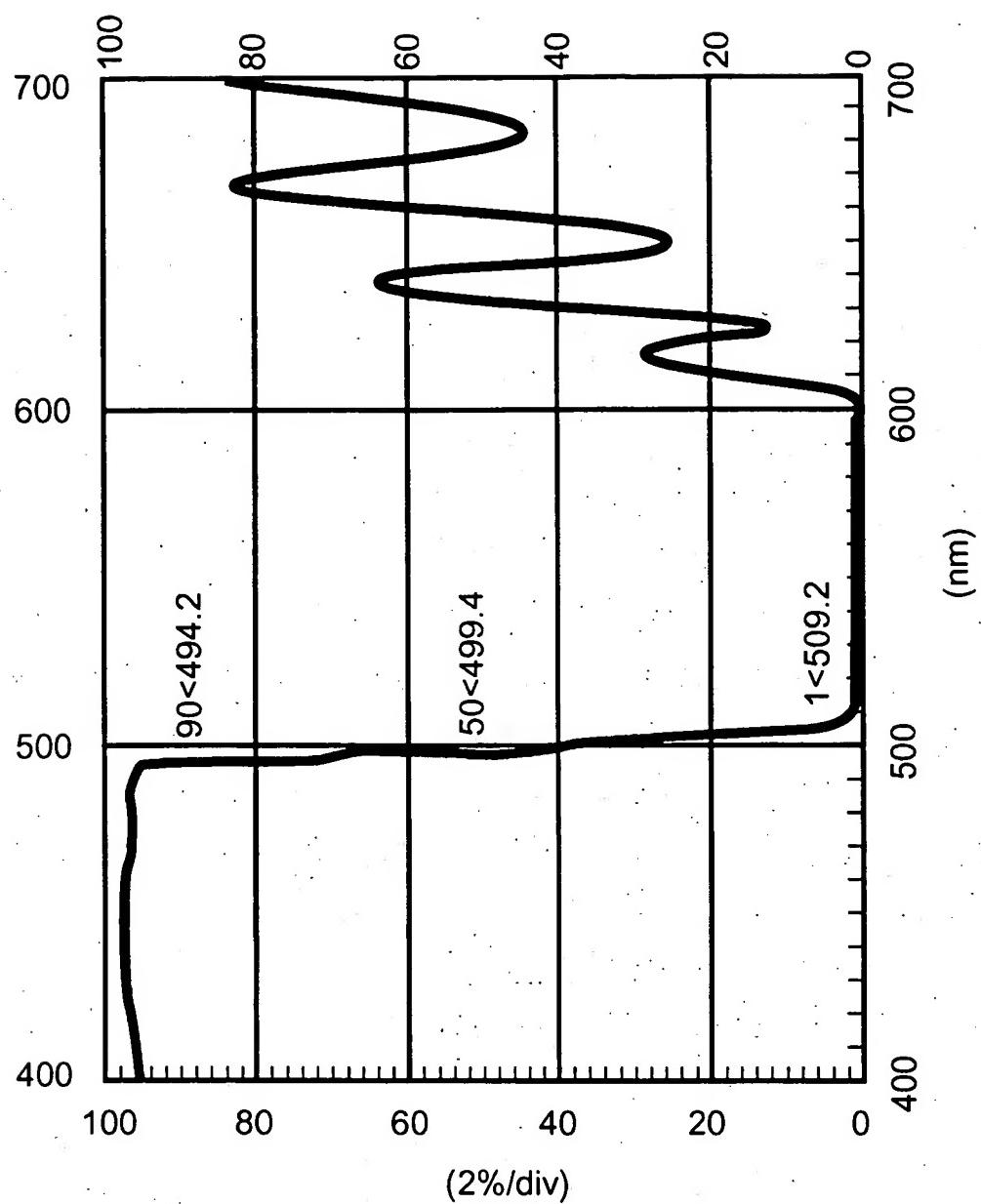


Fig. 18

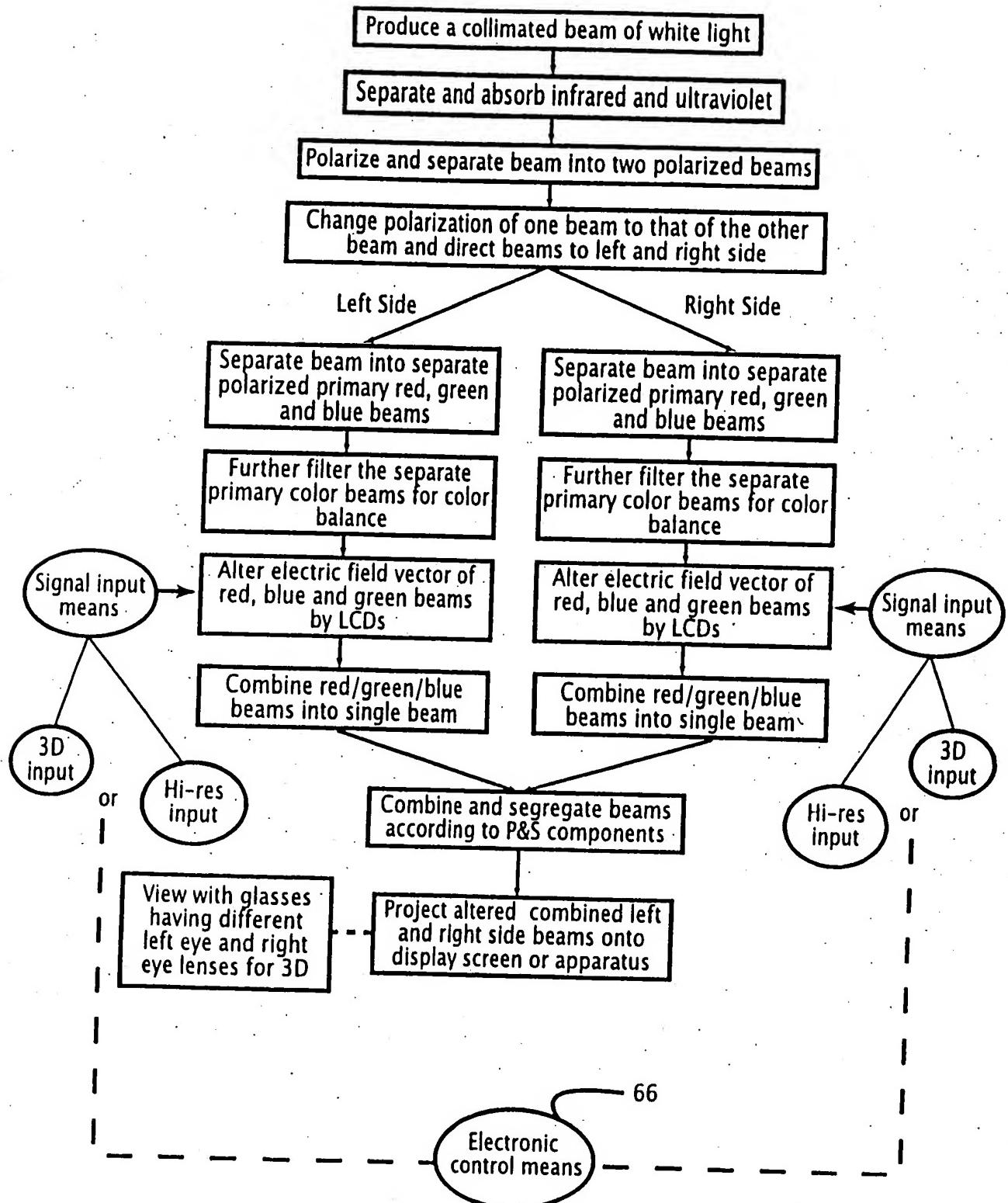


Fig. 19

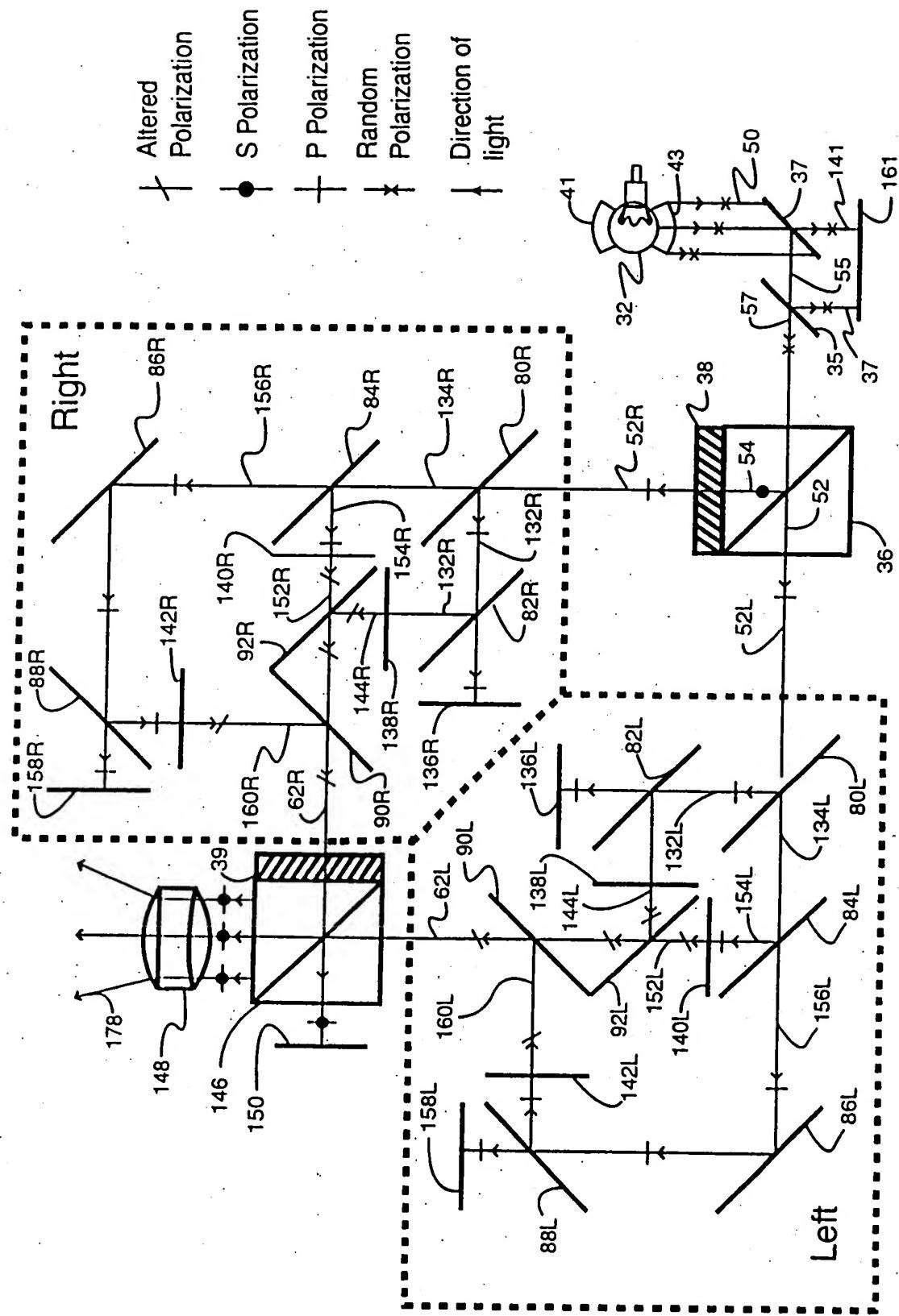


Fig. 20

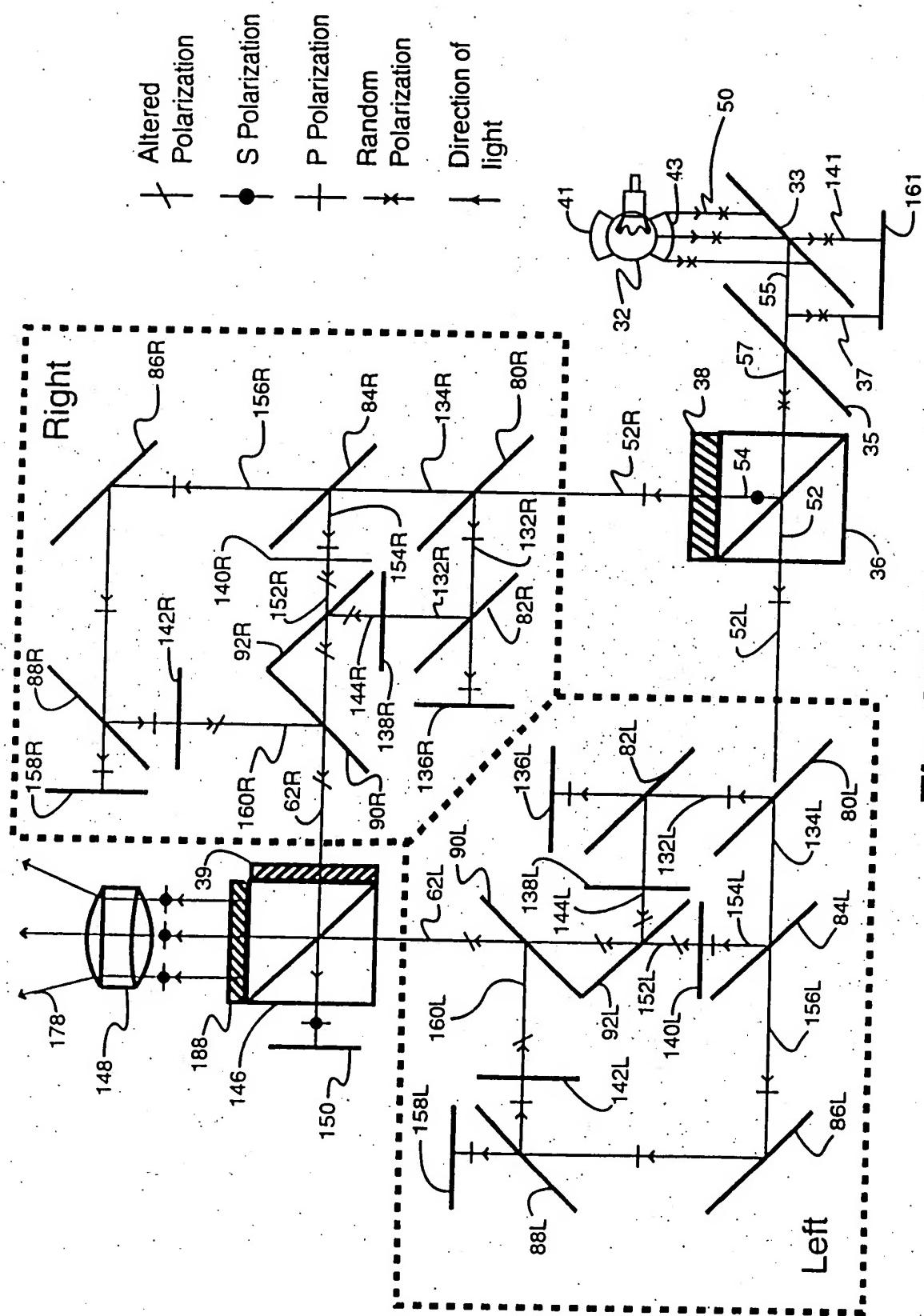
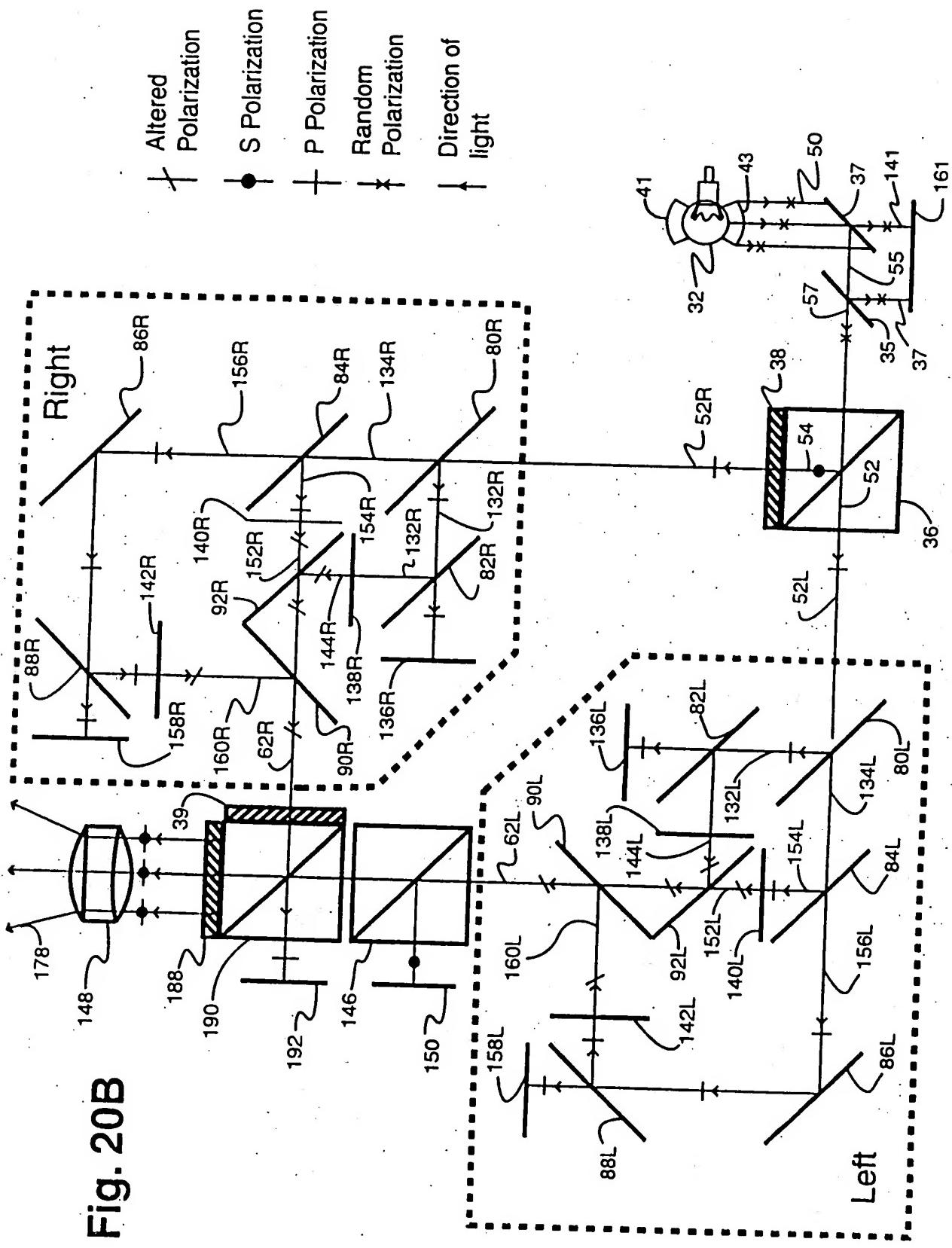


Fig. 20A

Fig. 20B



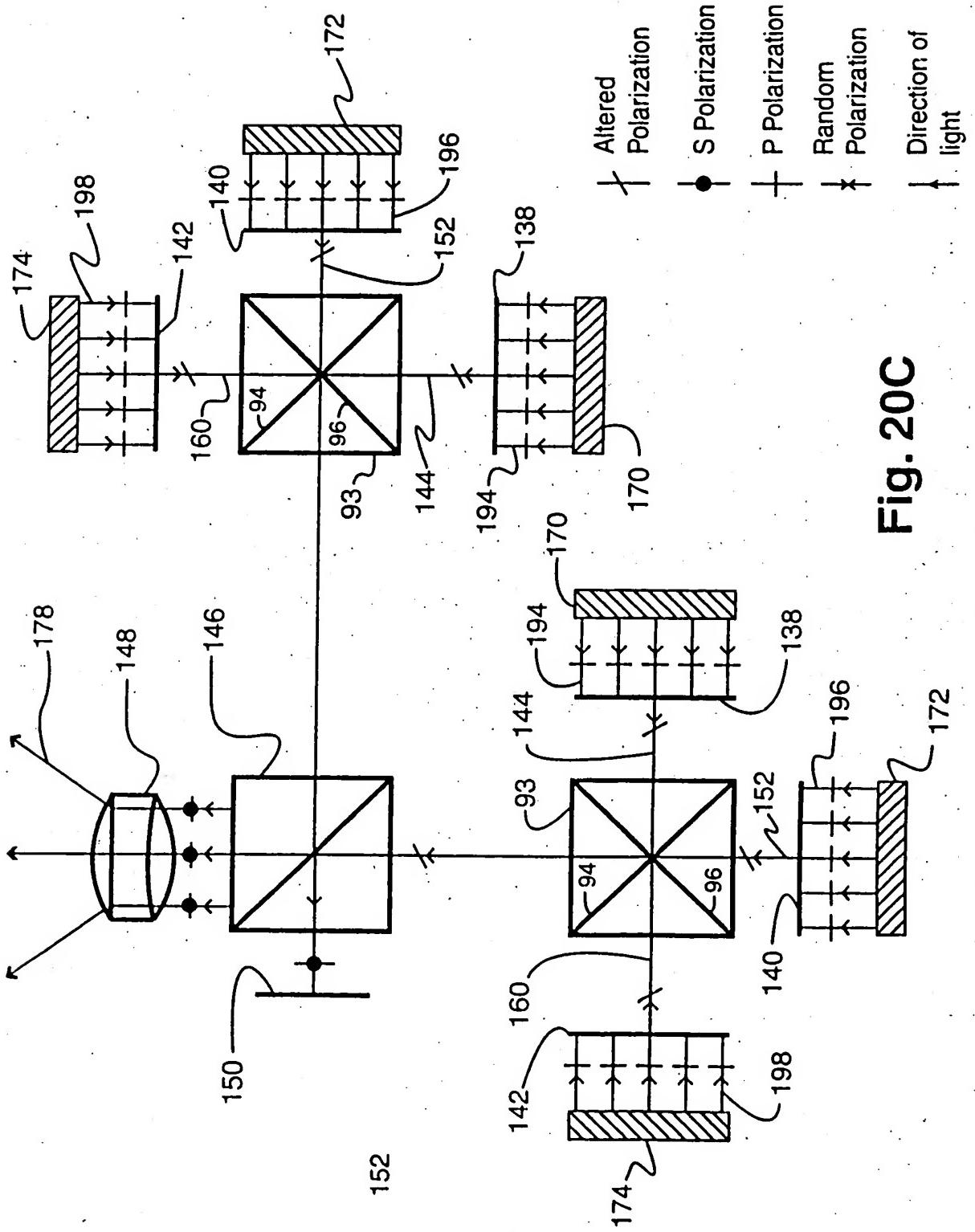


Fig. 20C

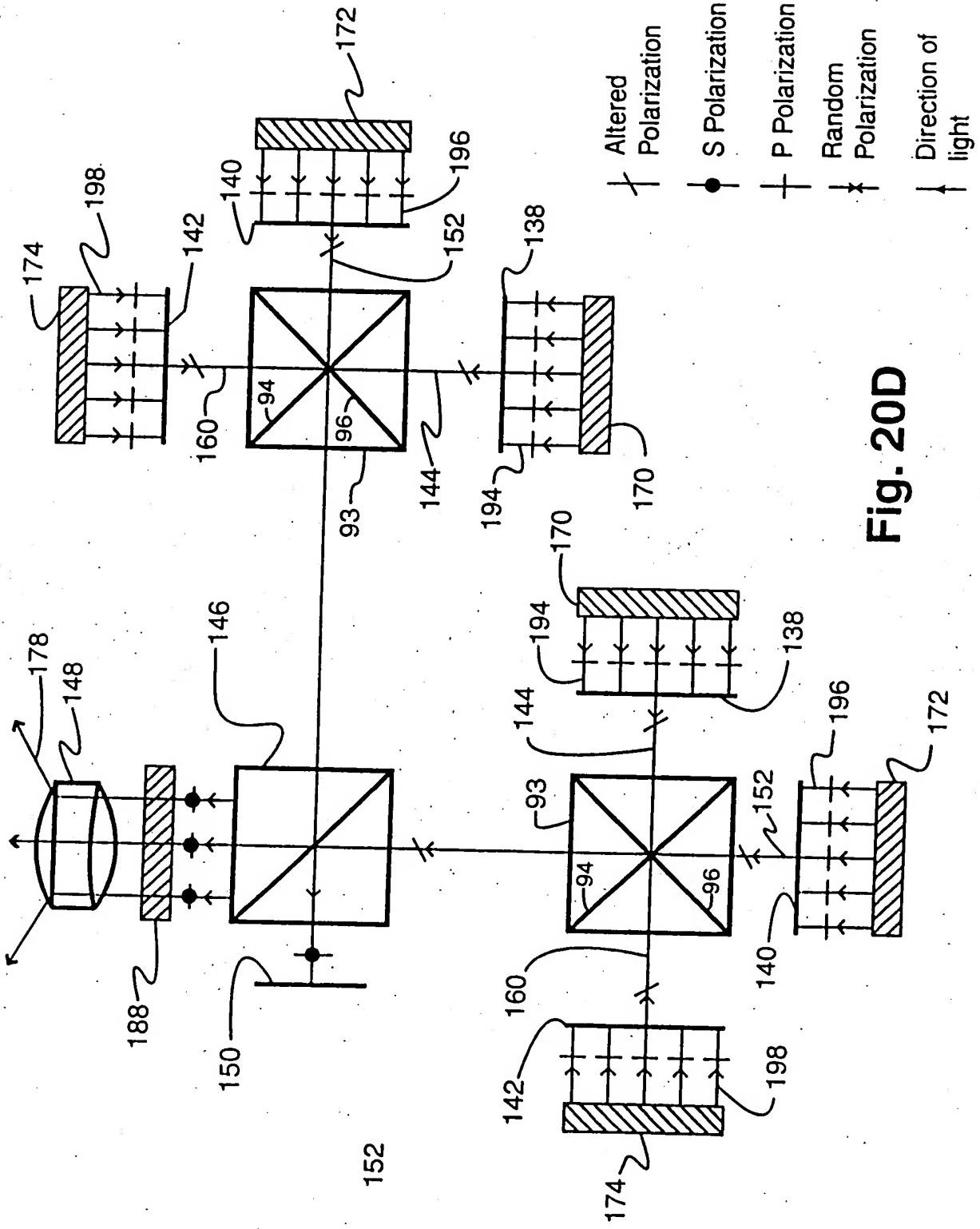


Fig. 20D

172

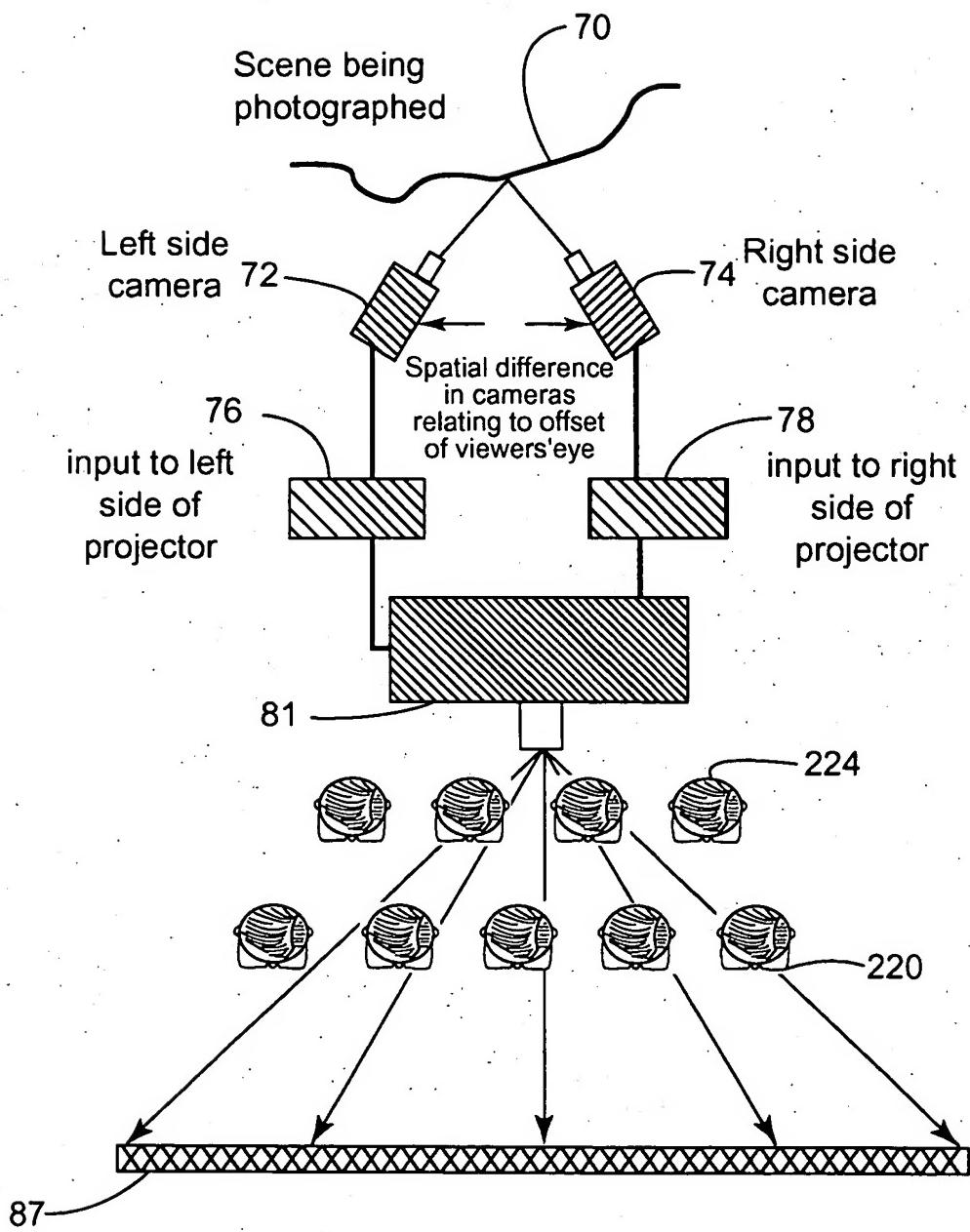


Fig. 21

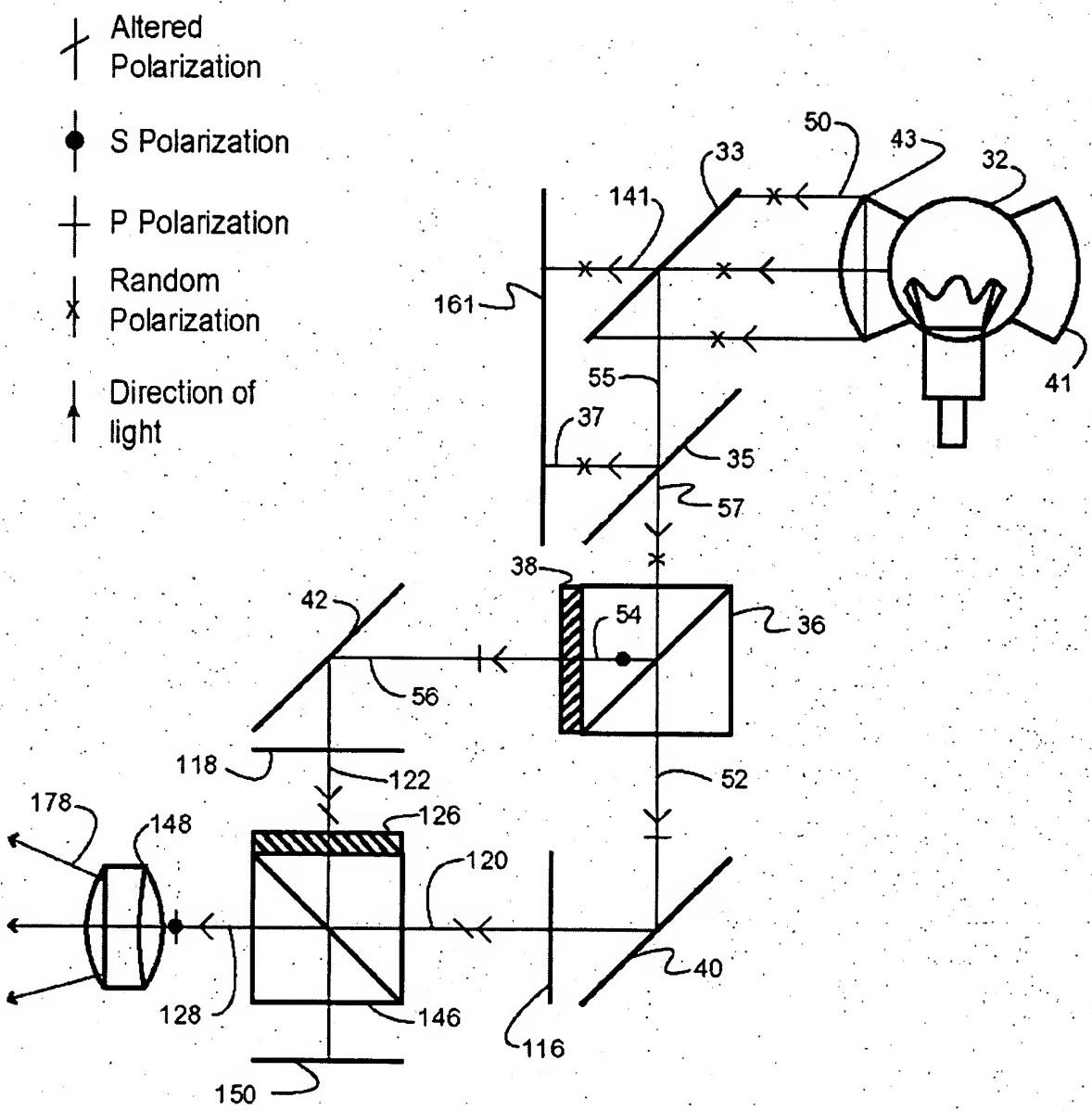


Fig. 22

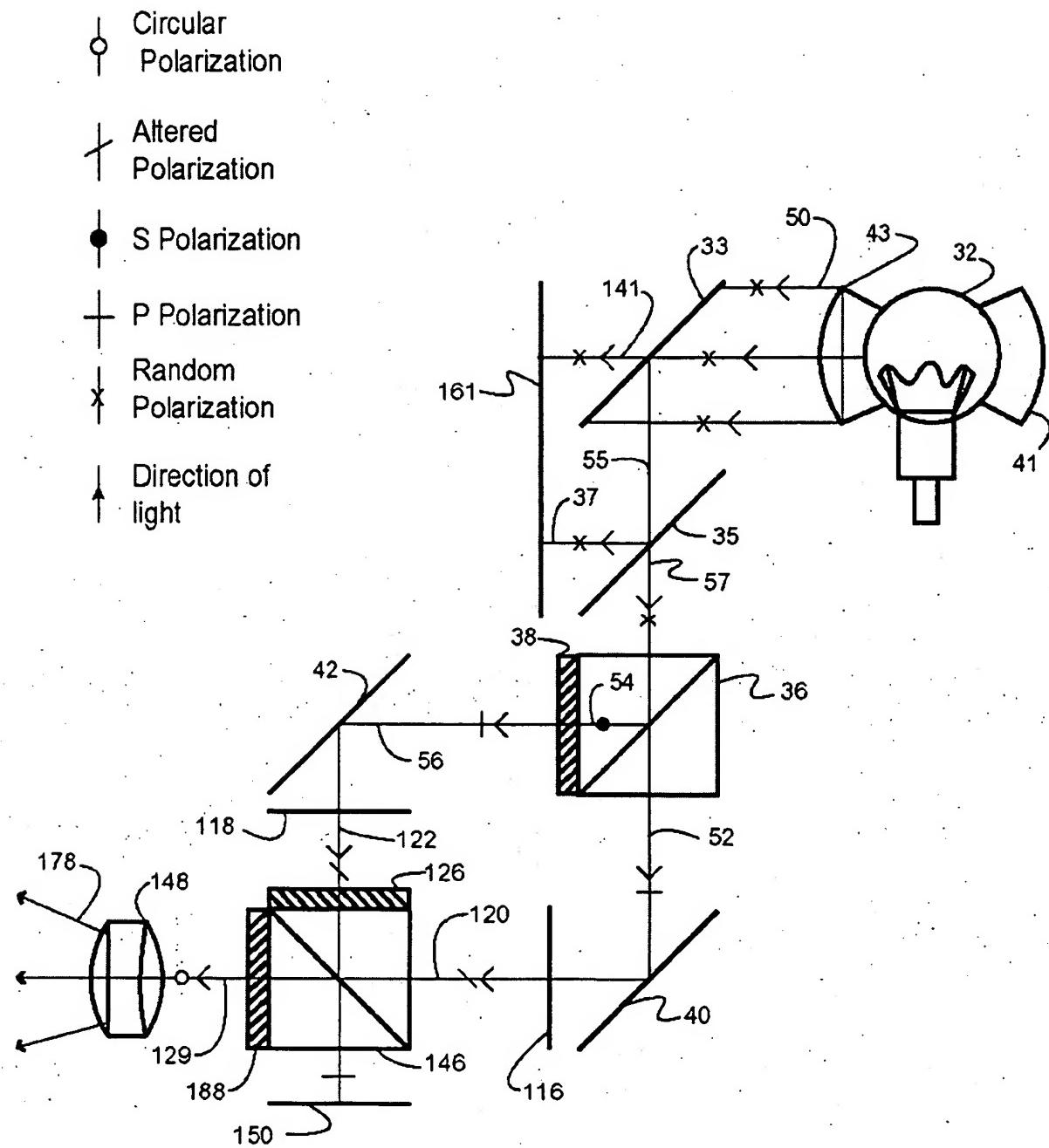


Fig. 22A

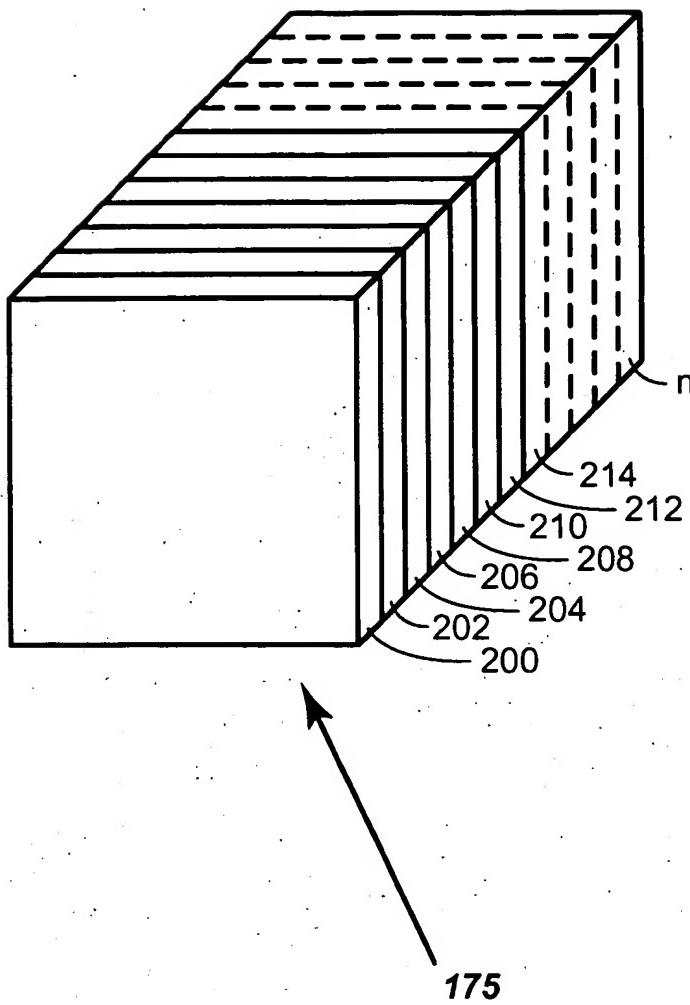


Fig. 23

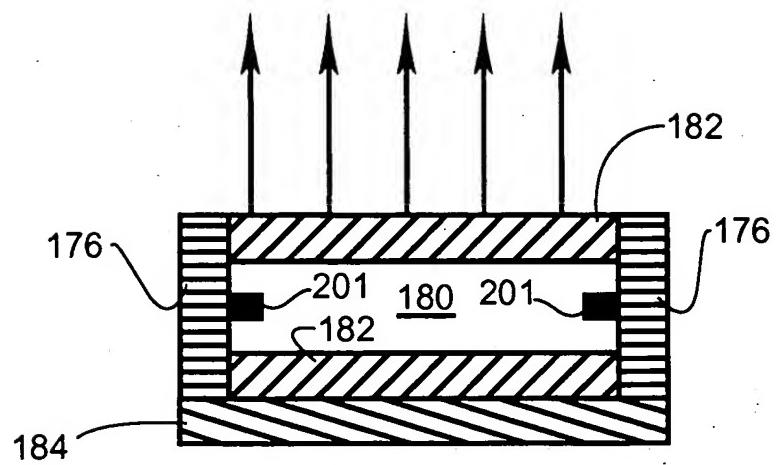


Fig. 24

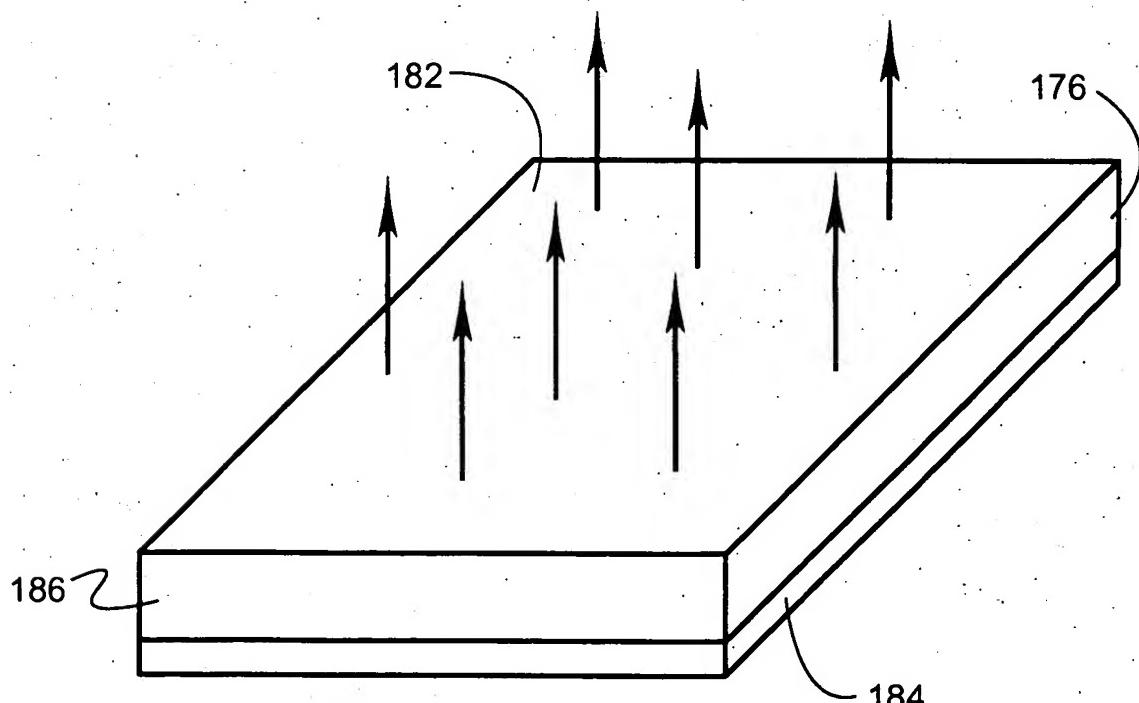


Fig. 24A

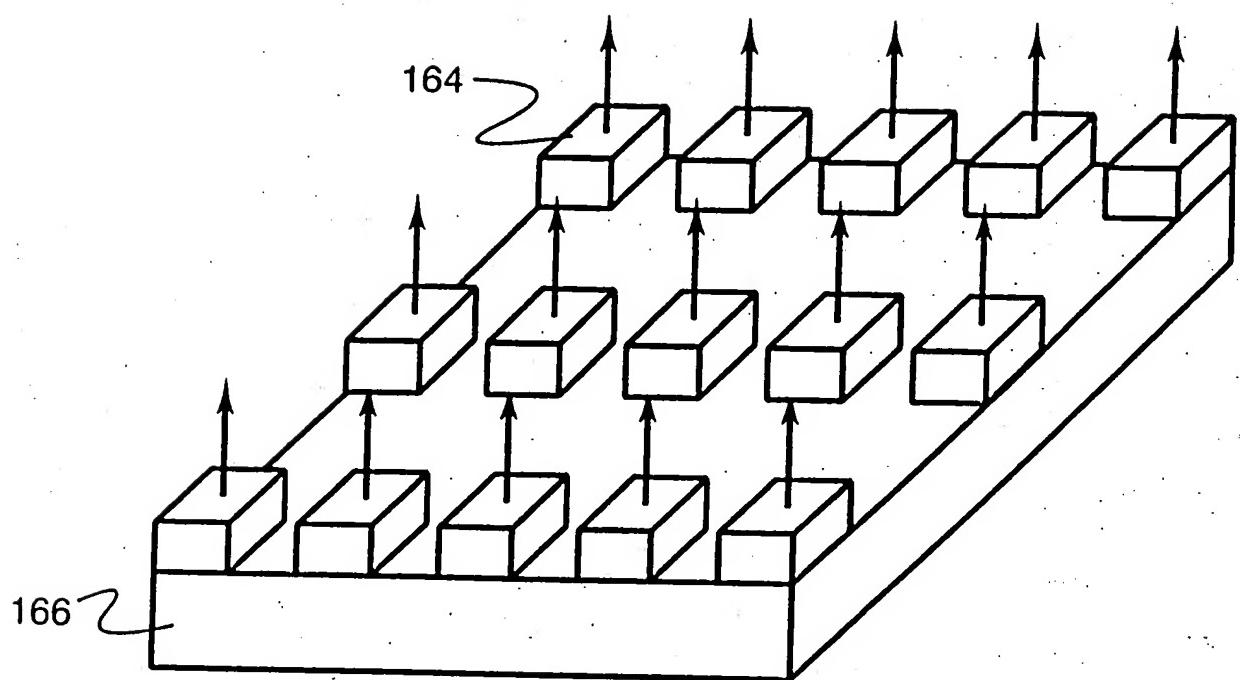


Fig. 25

PART NO.	FIG NO.	TYPE OF MIRROR	SYSTEM USAGE	>NM TRANS-MISSION	<NM TRANS-MISSION	>NM REFLECTION	<NM REFLECTION
33	12	CUTOFF	IR FILTER	700			700
35		CUTOFF	UV FILTER	430			430
40		BROADBAND	MAIN BEAM REFLECTOR			400	
42		BROADBAND	MAIN BEAM REFLECTOR			400	
44		BROADBAND	MAIN BEAM REFLECTOR			400	
46		BROADBAND	MAIN BEAM REFLECTOR			400	
80	14	BANDPASS	RED SPLITTER		585	595	
84	18	BANDPASS	GREEN SPLITTER		490	500	
86	15	CUTOFF	BLUE REFLECTOR	495			490
82	14	BANDPASS	RED REFLECTOR-TUNER		590	605	
92	16	BANDPASS	RED-GREEN COMBINER		585	615	
90	17	CUTOFF	RED-GREEN/BLUE COMBINER	525			500
88	15	CUTOFF	BLUE REFLECTOR-TUNER	490			485

Fig. 26

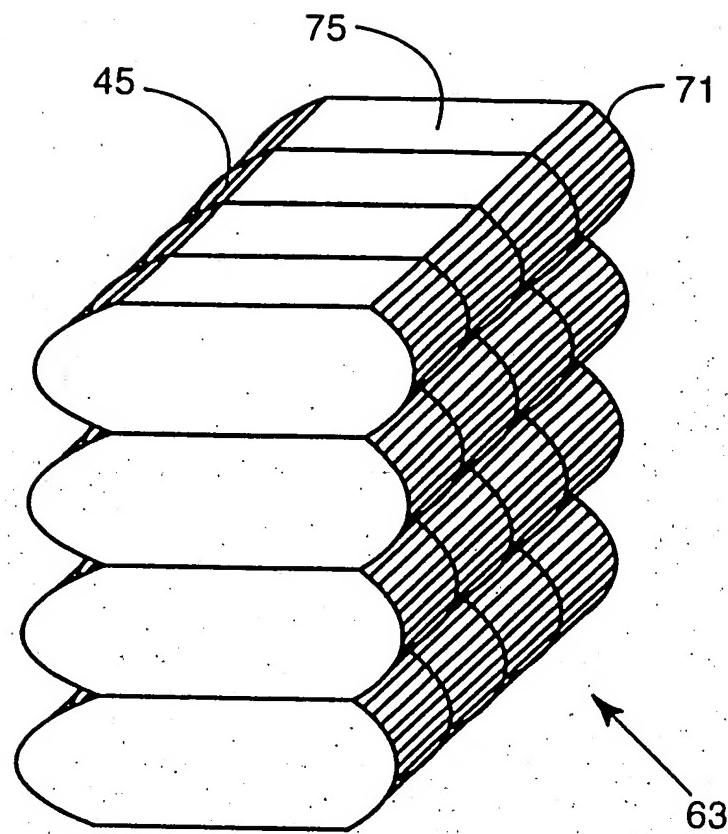


Fig. 27

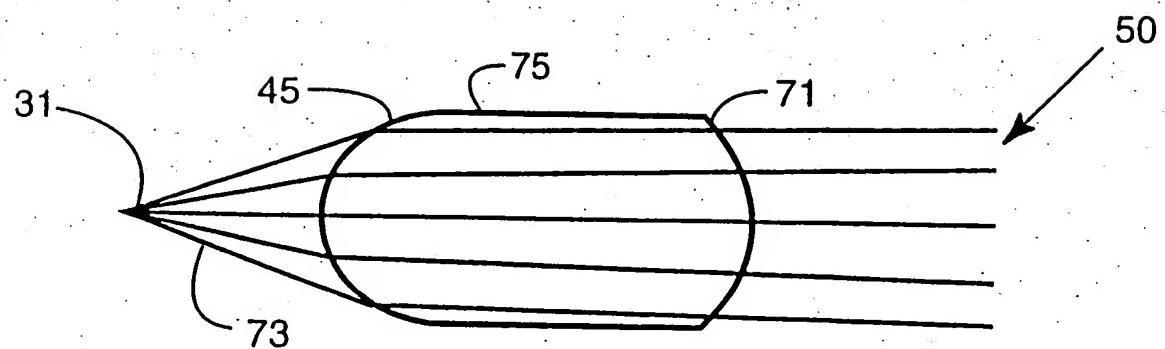


Fig. 27A

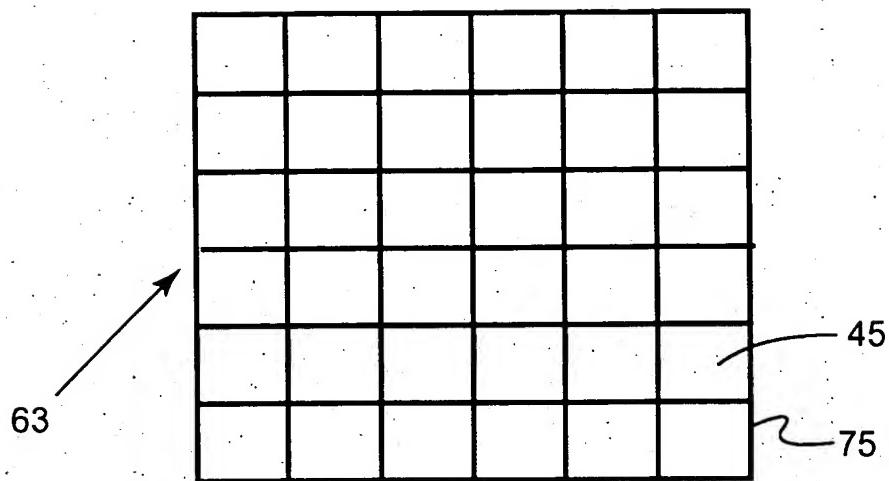


Fig. 27B

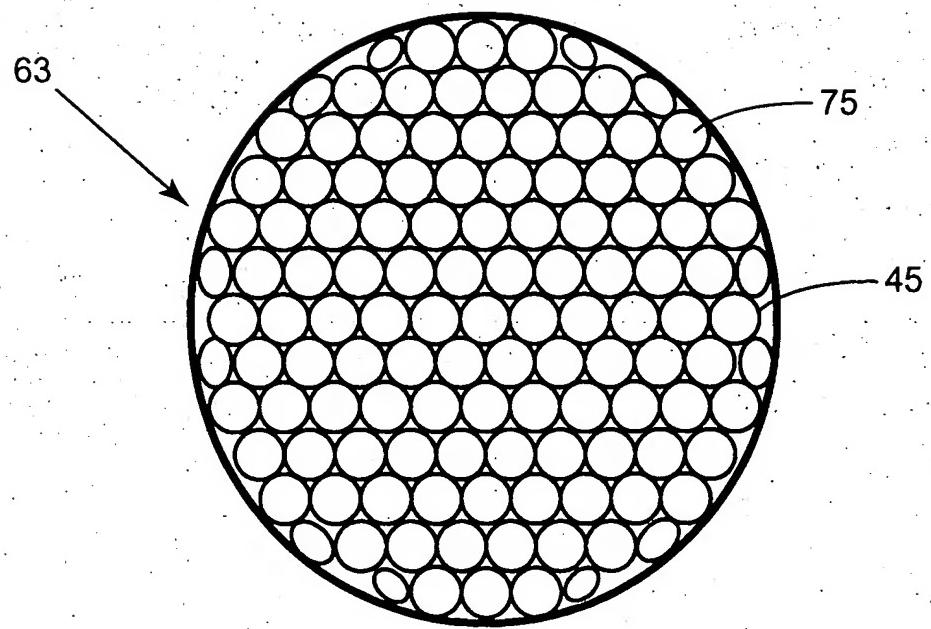


Fig. 27C

Fig. 28

